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2007 AUG -8 P 1:03

AZ CORP COMMISSION
DOCKET CONTROL

Transcript Exhibit(s)

Docket #(s): W-02450A-06-0253

Exhibit #: A1-A11, S1

Arizona Corporation Commission
DOCKETED

AUG -8 2007

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ORIGINAL NEW APPLICATION

BEFORE THE ARIZONA CORPORATION COMMISSION

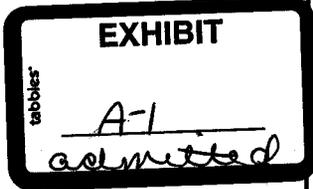
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COMMISSIONERS

- JEFF HATCH-MILLER, CHAIRMAN**
- WILLIAM A. MUNDELL**
- MIKE GLEASON**
- KRISTIN K. MAYES**
- MARK SPITZER**

AZ CORP COMMISSION
DOCUMENT CONTROL

2004 APR 14 P 4:37



**APPLICATION OF WATER
UTILITY OF GREATER
TONOPAH, INC., AN ARIZONA
CORPORATION, FOR AN
EXTENSION OF ITS
CERTIFICATE OF
CONVENIENCE AND NECESSITY.**

DOCKET NO. W-02450A -06-

W-02450A-06-0253

APPLICATION

Water Utility of Greater Tonopah, Inc., ("WUGT") hereby files pursuant to the provisions of A.R.S. § 40-281 et. seq. and A.C.R.R. R.14-2-402, its Application for an Extension of its Certificate Of Convenience And Necessity to provide domestic water service to that part of Section 19, Township 2 North, Range 6 West, Gila & Salt River Basin and Meridian, Maricopa County, Arizona more particularly described on Exhibit A, attached hereto (the "Extension Area"). The Extension Area constitutes that portion of the Balterra Development that is contiguous to that portion of the Balterra Development located within the area certificated to WUGT by Decision No. 54419 (as corrected by Decision No. 68451). Detailed maps outlining the Extension Area are attached hereto as Exhibit B. No State or Federal land is included within the Extension Area.

The following supports this Application:

1. WUGT is an Arizona corporation holding a certificate of convenience and necessity to provide domestic water in portions of the westerly part of Maricopa County. A

1 copy of the Certificate of Good Standing is attached hereto as Exhibit C.

2 2. J. John Mihlik is the President of WUGT. His business address and telephone
3 number are:

4
5 Water Utility of Greater Tonopah, Inc.
6 3800 North Central Avenue, Suite 770
7 Phoenix, Arizona 85012
8 Telephone: 602-224-0711
9 Facsimile: 602-224-5455

10 3. Mr. Leonard Scheid is the operator certified by the Arizona Department of
11 Environmental Quality for WUGT. He can be reached at:

12 Water Utility of Greater Tonopah, Inc.
13 201 East Coronado Street
14 Buckeye, Arizona 85326
15 Telephone: 623-386-1576
16 Facsimile: 623-386-6638
17 Cell: 623-764-8401

18 4. A corporate resolution authorizing this Application is attached hereto as
19 Exhibit D.

20 5. The certificate of convenience and necessity of WUGT, described in Decision
21 No. 54419 (as corrected by Decision No. 68451) includes 620 acres of the Balterra
22 Development. The Extension Area includes the approximately 480 additional acres that
23 make up the balance of the Balterra Development

24 6. The request for water service related to the Extension Area is attached hereto
25 as Exhibit E from Fronterra Village, LLC. Fronterra has recently acquired and plans to
26 develop approximately 1,100 acres as the Balterra Development. Fronterra anticipates the
27 Balterra Development will be composed of 4,189 residential units (i.e., the approximately
28

1 4,000 residential units referenced in its request for service), and have commercial demand
2 equivalent to another 1,911 residential units. The conceptual Land Use Plan is attached as
3 Exhibit F.

4
5 7. An application for a determination of physical availability has been filed with
6 the Department of Water Resources by the landowners/developers to demonstrate there is an
7 adequate physical water supply available to meet the projected demands of the Balterra
8 Development. The landowners/developers, not WUGT, must apply for and secure a
9 Certificate of Assured Water Supply. However, in order to secure an application for a
10 Certificate of Assured Water Supply, the lands must be served by a municipal provider or
11 within the certificated area of a private water company or subject to an application therefore.
12 WUGT understands an application for a Certificate of Assured Water Supply for the Balterra
13 Development will soon be filed with the Arizona Department of Water Resources. A copy
14 of the Analysis of Assured Water Supply from the Arizona Department of Water Resources
15 is attached hereto as Exhibit G.

16
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18 8. The Balterra Development will be developed in five phases. The first two
19 phases include a portion of the Extension Area, as well as area already certificated to WUGT
20 by Decision No. 54419 (as corrected by Decision No. 68451). A copy of the proposed
21 phasing of the Balterra Development is attached as Exhibit H.

22
23 9. The developer has prepared a preliminary water master plan. A copy of the
24 Water and Wastewater Master Plan for the Balterra Development has previously been
25 submitted to the Commission as part of Docket No. SW-20403A-05-0586 (Balterra Sewer
26 Corp.'s application for a certificate to provide wastewater service). The estimated water
27
28

1 system costs by phase are reflected on Exhibit I.

2 10. WUGT will require the developers of the Balterra Development to finance and
3 cause to be constructed the water-related infrastructure, including, without limitation, wells,
4 storage tanks, booster stations and water lines, necessary to meet the water demands of the
5 Extension Area through main line extension agreements as allowed pursuant to A.A.C. R14-
6 2-406. Main line extension agreements that require the developer to advance funds for new
7 water infrastructure place the risk of the development on the developer, not on the water
8 company or its customers. Successful developments will receive significant refunds (as a
9 percentage of revenues produced), while plant in unsuccessful developments will ultimately
10 be treated as contributions (and under current Commission practice permanently excluded
11 from rate base).

12 11. WUGT currently owns and operates eight separate public water systems (one
13 of which (WPE #1) still does not have a PWS number). The water demand and production
14 for each system is separately set forth in the Data Sheets attached hereto as Exhibit J. Water
15 facilities will be developed within the Balterra Development to ensure sufficient water
16 production and storage capability is available to meet its entire demand. In addition, WUGT
17 has an existing well located in West Phoenix Estates Unit #3 (adjacent to the Balterra
18 Development) that, through interconnection or hauling, can be available to meet initial
19 demands in the Balterra Development.¹

20 12. The current balance sheet and profit and loss statement of WUGT for the

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26 ¹ The well in West Phoenix Estates Unit #3 is not presently interconnected with any public water system. However, it
27 will be interconnected with the West Phoenix Estates Unit #6 system (PWS #07-733) by the end of the year.
28 Interconnecting the three systems (WPE Unit #3, WPE Estates Unit #6 and the Balterra Development) will increase
redundancy and system reliability for this portion of the WUGT system.

1 twelve month period ending December 31, 2005 is attached hereto as Exhibit K.

2 13. The developers of the Balterra Development have based water demand
3 projections upon the entire Balterra Development, not just the Extension Area. Phases 1 and
4 2 of the development contain significant portions of the Extension Area. The Expansion
5 Area encompasses the entirety of Phases 3 and 4. It is estimated the Balterra Development
6 (both within and beyond the Extension Area) will experience new customers that require
7 service over the next five years as follows:
8

9 Residential:

10 First Year: 860 Second Year: 1478 (2338 cumulative)

11 Third Year: 1158 (3496 cumulative) Fourth Year: 693 (4189 cumulative)

12 Fifth Year: 0 (4189 cumulative)

13 Commercial:

14 First Year: 0 Second Year: 0 Third Year: 0

15 Fourth Year: 0 Fifth Year: 1911 (EDUs)

16 14. The projected annual water consumption (gallons) in the Extension Area for
17 each of the first five years after water service commences therein is estimated (using 6000
18 gallons per customer, with each new customer assumed to be active for ½ of the year) as
19 follows:
20

21 Residential:

22 First Year: 10,800,000 Second Year: 56,160,000

23 Third Year: 90,720,000 Fourth Year: 134,640,000

24 Fifth Year: 187,200,000
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Commercial:

First Year: 0 Second Year: 0 Third Year: 0 Fourth Year: 7,200,000
Fifth Year: 12,240,000

15. Based upon WUGT's current rates and charges, the annual operating revenue in the Extension Area for each of the first five years after water service commences therein is as follows:

Residential:

First Year: \$81,456 Second Year: \$423,540 Third Year: \$684,180
Fourth Year: \$1,015,416 Fifth Year: \$1,411,800

Commercial:

First Year: 0 Second Year: 0 Third Year: 0 Fourth Year: \$54,300
Fifth Year: \$92,316

16. Based on the forgoing projections, WUGT estimates annual operating expenses for the first five years of operations to be:

Residential:

First Year: \$88,787 Second Year: \$461,659 Third Year: \$649,971
Fourth Year: \$964,645 Fifth Year: \$1,341,210

Commercial:

First Year: 0 Second Year: 0 Third Year: 0 Fourth Year: \$51,585
Fifth Year: \$87,700

17. WUGT holds a Maricopa County franchise that already encompasses the Extension Area. A copy of the Maricopa County franchise is attached as Exhibit L.

18. The public convenience and necessity require the granting of this Application.

1 WUGT was certificated to provide water service to over 56% of the Battered Development in
2 1985. WUGT has made investment as necessary and appropriate to meet the demands for
3 service in and around the area. The owners of the Extension Area have requested water
4 service to the entire Battered Development from WUGT. Expansion of WUGT's certificate
5 of convenience and necessity to encompass the Extension Area is in the public interest, will
6 promote orderly growth of existing utilities in the area, achieve economies of scale related
7 therewith and is consistent with A.R.S. §40-281 (B) (wherein the legislature provides that a
8 corporation is not required to secure a certificate for an extension "contiguous to its . . . line,
9 plant or system . . . or for an extension . . . necessary in the ordinary course of its business).

12 19. To the best of its knowledge and belief, WUGT is currently in compliance with
13 all regulatory requirements applicable to the provision of domestic water service within its
14 certificated area.

16 20. A copy of the proposed Public Notice form is attached hereto as Exhibit M.

17 21. All correspondence and communications regarding this Application should be
18 addressed to:

19
20 William P. Sullivan
21 Nancy A. Mangone
22 Curtis, Goodwin, Sullivan,
23 Udall & Schwab, PLC
24 2712 N. Seventh Street
25 Phoenix, Arizona 85006
26 Phone (602) 393-1700
27 Facsimile (602) 393-1703
28 wsullivan@cgsuslaw.com
nmangone@cgsuslaw.com

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With copies to:

J. John Mihilik
Water Utility of Greater Tonopah, Inc.
3800 North Central Avenue, Suite 770
Phoenix, Arizona 85012

WHEREFORE, Water Utility of Greater Tonopah, Inc. respectfully requests
the Commission:

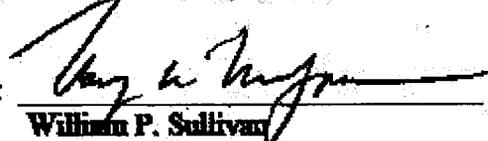
1. Accept this Application for filing and promptly issue a procedural order governing the processing of this Application, including, without limitation, the manner and time for filing any notice, the time for filing for intervention, the time for filing the Staff Report and the time for hearing;

2. Order that WUGT's Certificate of Convenience and Necessity be expanded to include the Extension Area as described in Exhibit A attached hereto; and

3. Grant such further relief as the Commission deems just and proper based upon the record presented.

DATED THIS 14th day of April, 2006.

CURTIS, GOODWIN, SULLIVAN,
UDALL & SCHWAB, P.L.C.

By: 
William P. Sullivan
Nancy A. Mangone
2712 North 7th Street
Phoenix, Arizona 85006-1090
Attorneys for Water Utility of Greater
Tonopah, Inc.

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PROOF AND CERTIFICATE OF MAILING

I hereby certify that on this 14th day of April, 2006, I caused the foregoing document to be served on the Arizona Corporation Commission by delivering the original and thirteen (13) copies of the above to:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Mary Walker
1224-5-3-0App for CCA Ex Returns v2.doc

Exhibit A

WATER SERVICE AREA DESCRIPTION**BALTERRA**

THE NORTHEAST QUARTER AND THE SOUTH HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 6 WEST, GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE SOUTHWEST QUARTER OF SAID SECTION 19 DESCRIBED AS FOLLOWS:

COMMENCING AT A BRASS CAP FOUND AT THE SOUTH QUARTER CORNER OF SAID SECTION 19, FROM WHICH AN ARIZONA DEPARTMENT OF TRANSPORTATION BRASS CAP AT THE SOUTHEAST CORNER OF SAID SECTION 19 BEARS SOUTH 89°28'08" EAST, A DISTANCE OF 2640.04 FEET; THENCE NORTH 89°28'43" WEST, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 1482.82 FEET; THENCE NORTH 00°31'17" EAST, A DISTANCE OF 40.00 FEET TO A HALF INCH REBAR AT A POINT ON A LINE LYING 40.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19 AND THE TRUE POINT OF BEGINNING;

THENCE CONTINUING NORTH 00°31'17" EAST, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR AT A POINT ON A LINE LYING 240.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19;

THENCE SOUTH 89°28'43" EAST, ALONG SAID LINE LYING 240.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR;

THENCE SOUTH 00°31'17" WEST, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR AT A POINT ON SAID LINE LYING 40.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19;

THENCE NORTH 89°28'43" WEST, ALONG SAID LINE LYING 40.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR AT THE POINT OF BEGINNING;

ALSO EXCEPT ANY PORTION OF THE SOUTHWEST QUARTER OF SAID SECTION 19 LYING WITHIN THAT CERTAIN TRACT OF LAND CONDEMNED FOR HIGHWAY PURPOSES BY INSTRUMENT RECORDED UNDER DOCKET 7553, PAGE 749, RECORDS OF MARICOPA COUNTY ARIZONA.

SITUATE IN THE COUNTY OF MARICOPA, STATE OF ARIZONA.

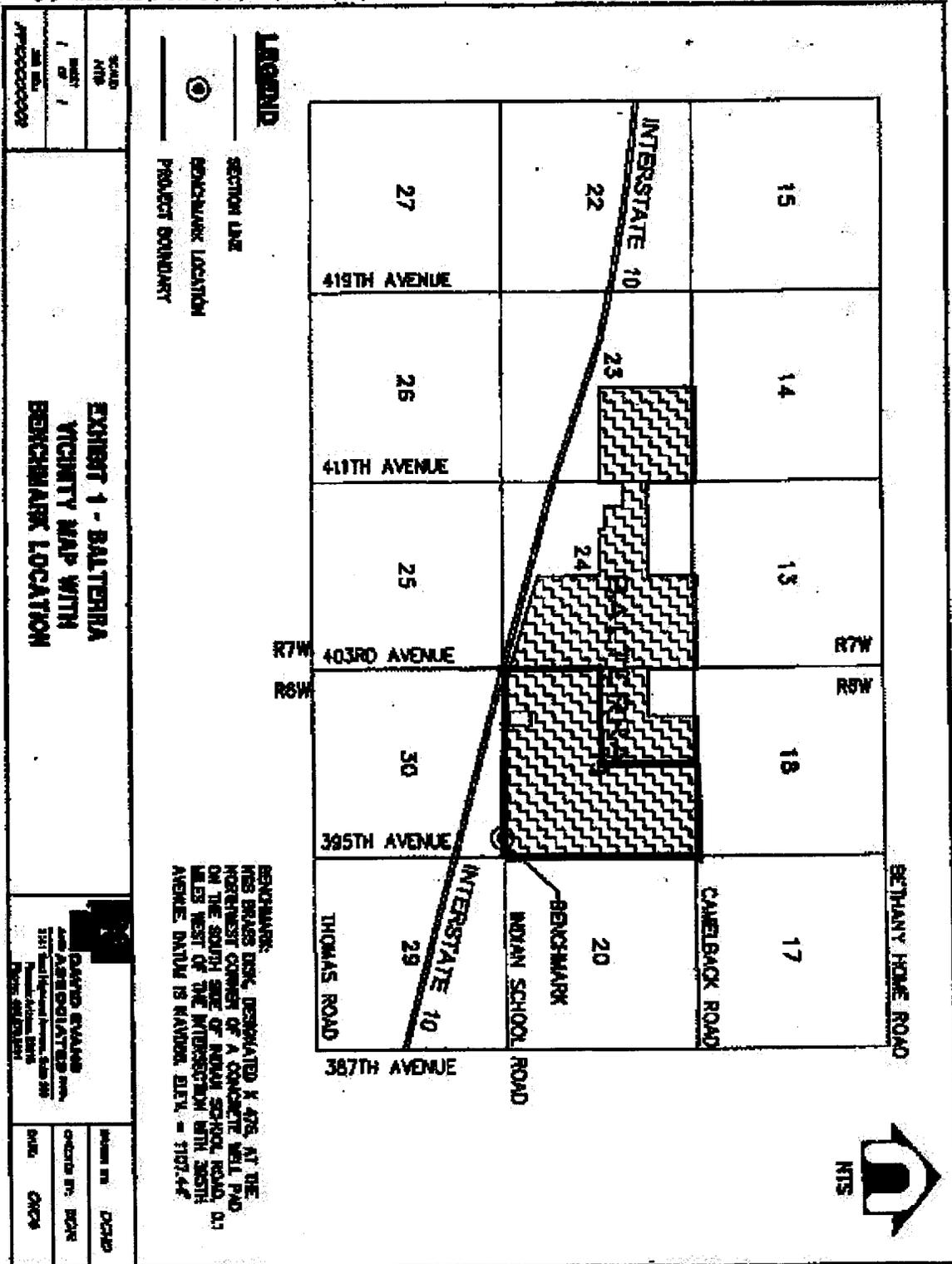
CONTAINS 475.815 ACRES MORE OR LESS.

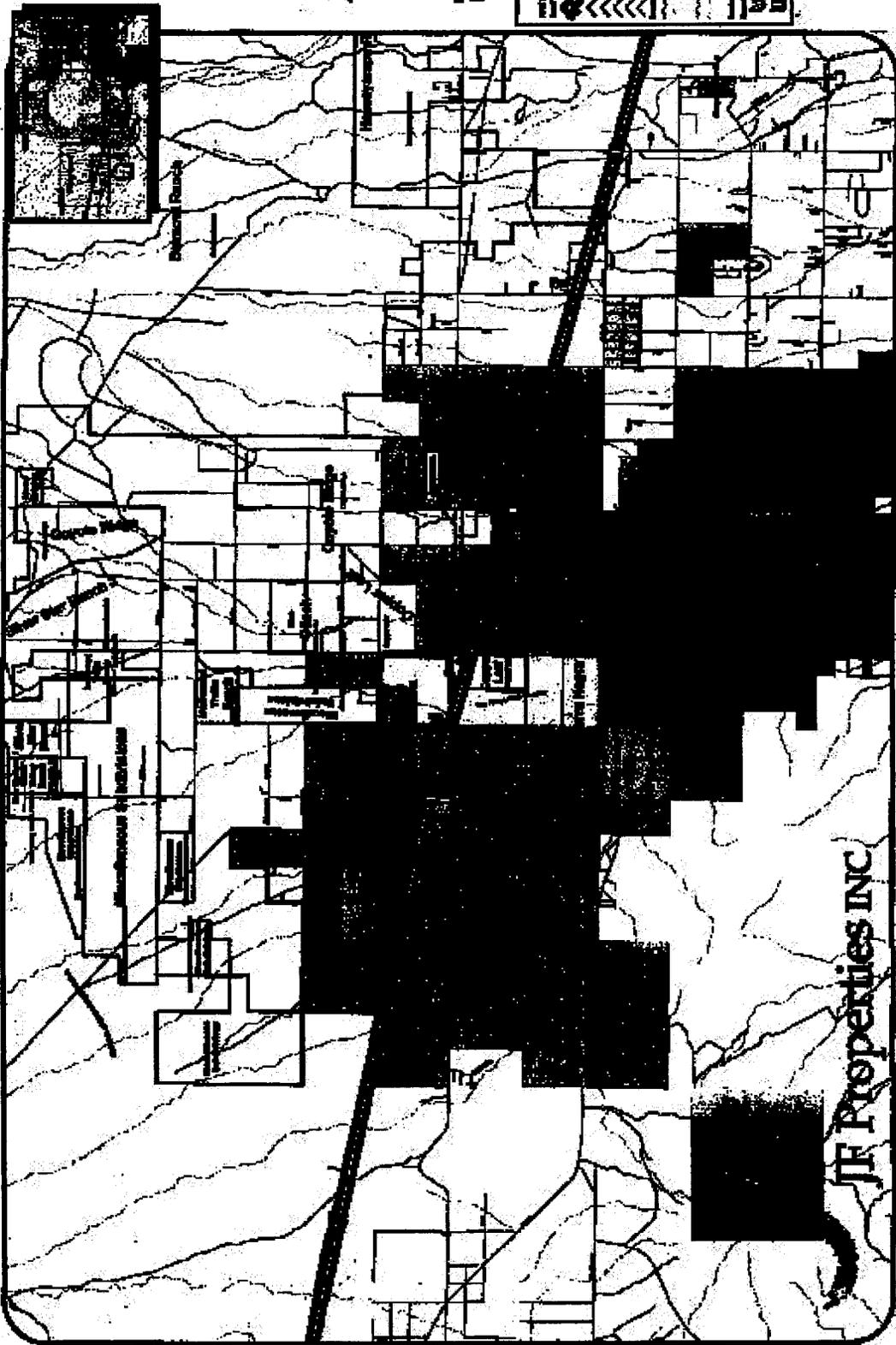


P:\JIEP\0000002\0600\INFO\S\16055\ Legal Descriptions\SALTERRA WATER SERVICE.doc

Exhibit B

P:\V\PR0000002\0400CAD\EC\DW\Enb\15\W\FC\G\PR0000002-DHBT1.dwg Apr 24, 2008 4:27:54pm





Tonopah Area • Certificates of Convenience and Necessity

Dark Shade = Water Utility of Greater Tonopah, Inc.

ATTACHMENT "B"

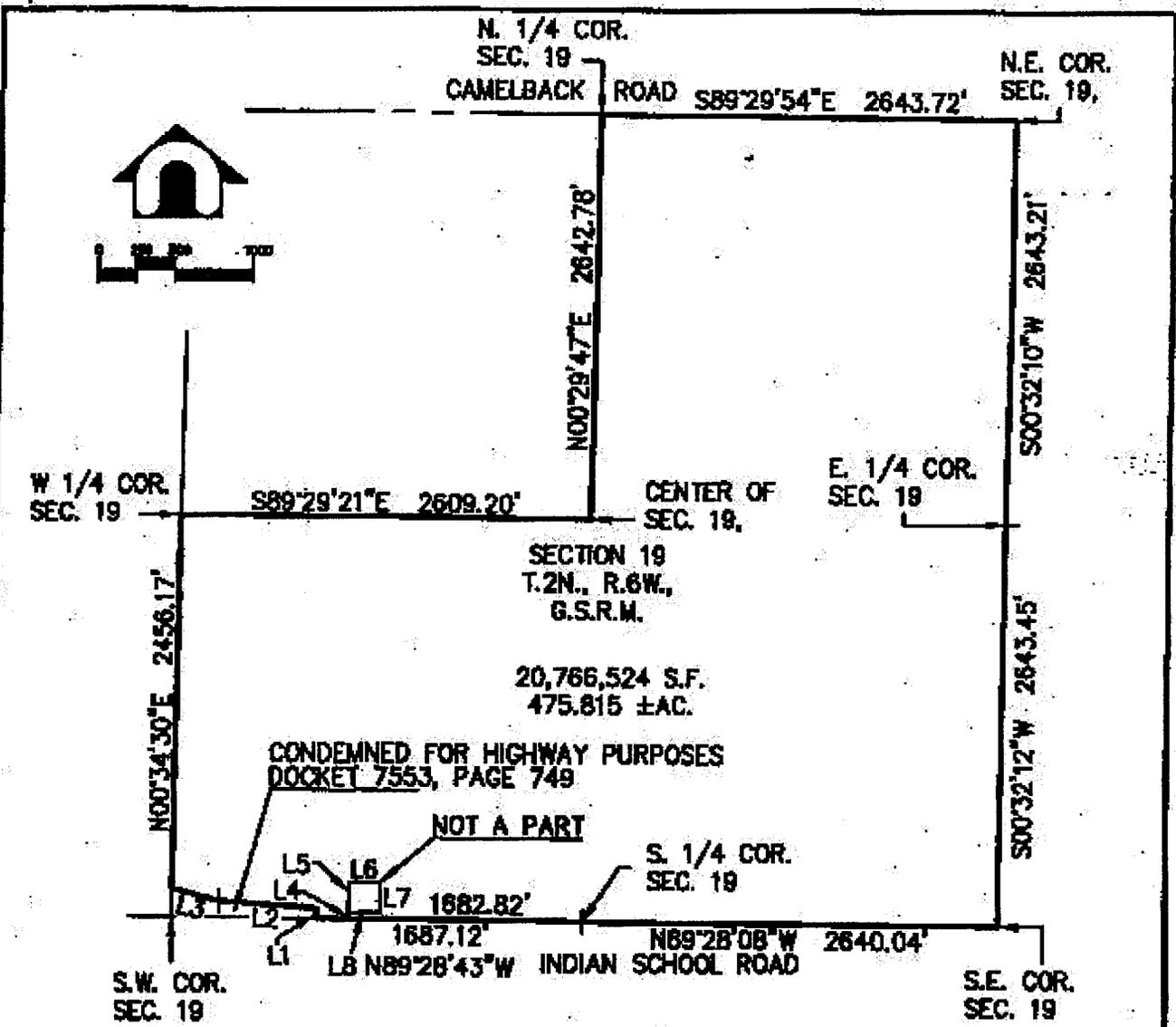
Maricopa	19	2N	6W
COUNTY	SECTION	TOWNSHIP	RANGE

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

Type or Print Description Here:

See Attached Maps.

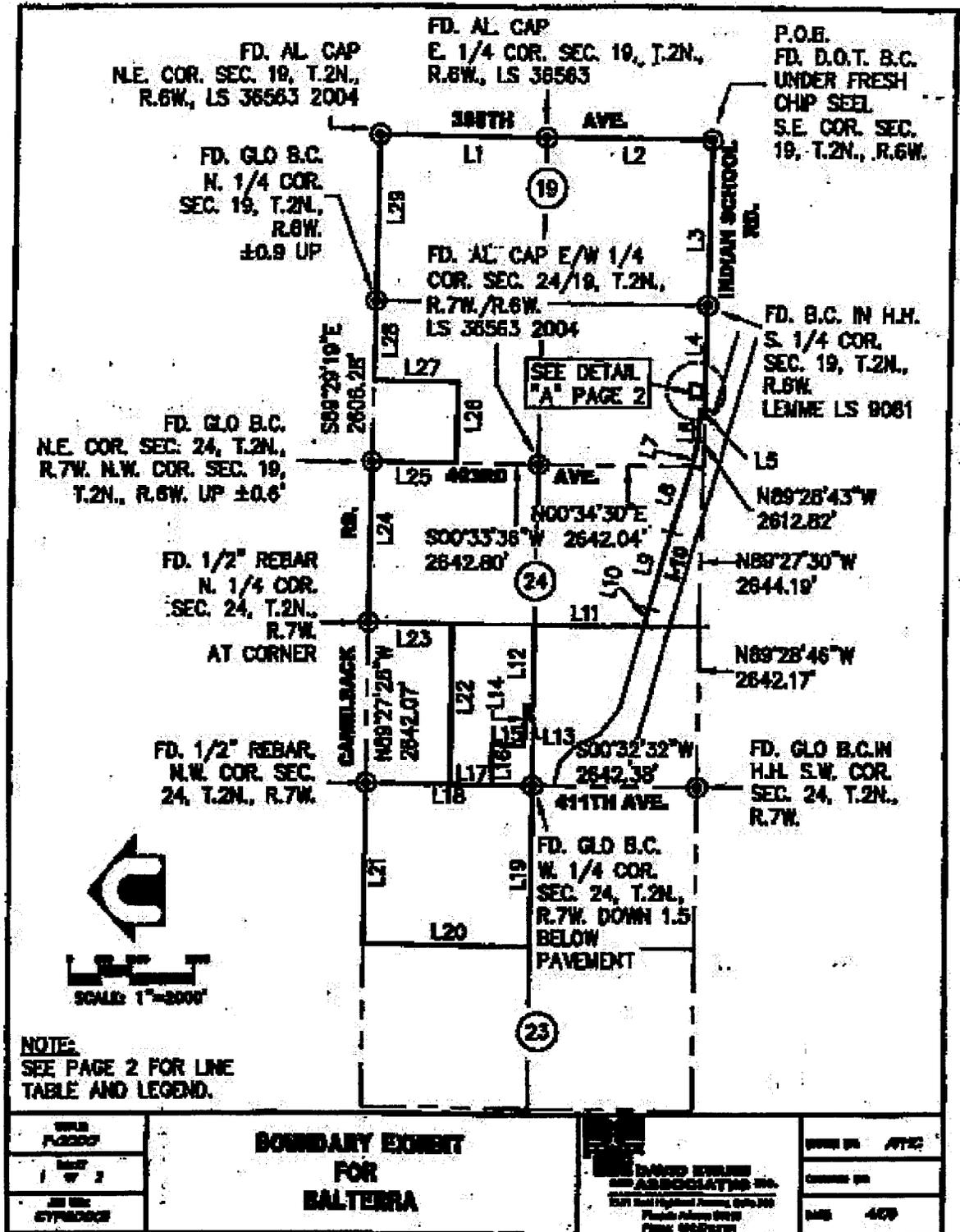
ccenrL.doc 04/00



LINE TABLE		
LINE	BEARING	LENGTH
L1	N00°31'17"E	65.22'
L2	N85°42'56"W	629.08'
L3	N74°33'19"W	308.20'
L4	N00°31'17"E	40.00'
L5	N00°31'17"E	200.00'
L6	S89°28'43"E	200.00'
L7	S00°31'17"W	200.00'
L8	N89°28'43"W	200.00'

P:\JFD\0000021\030040\SW\DWG\BALTERRA\TFR0000002.dwg B/LCA New 28, 2005 9:25:38am

SCALE 1"=1000' SHEET 1 OF 1 JOB NO. JFD0002	WATER SERVICE AREA BALTERRA TONAPAH, MARICOPA, ARIZONA	DAVID EVANS ASSOCIATES INC. 2411 East Highway Avenue, Suite 200 Phoenix, Arizona 85016 Phone 602.945.1111 Fax 602.945.1111	DRAWN BY ATC CHECKED BY B/LCA DATE 8/05
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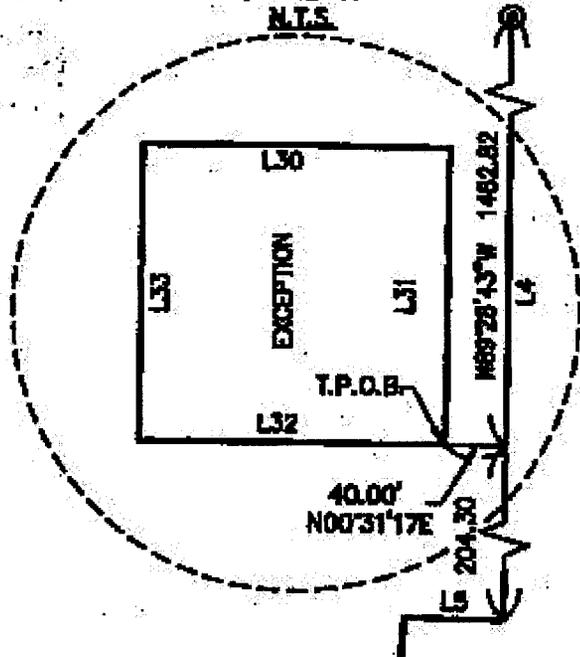


LEGEND

-  INDICATES FOUND MONUMENT AS NOTED
-  RIGHT OF WAY LINE
-  INDICATES MONUMENT LINE
-  INDICATES PROPERTY LINE

P.O.C.
FD. E.C. IN H.H.
S. 1/4 COR. SEC. 19,
T.2N., R.6W.
LEWIS LS 9081

DETAIL "A"
N.T.S.



LINE TABLE		
LINE	BEARING	LENGTH
L1	S00°32'10"W	2643.21'
L2	S00°32'12"W	2643.45'
L3	N89°28'08"W	2640.04'
L4	N89°28'43"W	1687.12'
L5	N00°31'17"E	65.22'
L6	N85°42'56"W	629.08'
L7	N74°33'19"W	308.20'
L8	N74°32'33"W	1142.11'
L9	N74°32'55"W	1300.16'
L10	N74°32'56"W	284.06'
L11	N00°32'56"E	1751.55'
L12	N89°27'44"W	1321.24'
L13	N00°33'08"E	132.00'
L14	N89°27'44"W	660.61'
L15	N00°33'16"E	528.12'
L16	N89°27'40"W	660.59'
L17	N00°33'24"E	660.13'
L18	S00°33'24"W	2840.55'
L19	N89°26'32"W	2636.57'
L20	N00°35'08"E	2841.17'
L21	S89°26'44"E	2635.23'
L22	S89°27'36"E	2842.28'
L23	N00°32'53"E	1320.15'
L24	S89°31'19"E	2845.96'
L25	S00°33'38"W	1320.00'
L26	S89°29'19"E	1320.00'
L27	N00°33'36"E	1320.00'
L28	S89°29'19"E	1286.27'
L28	S89°29'54"E	2843.72'
L30	S00°31'17"W	200.00'
L31	N89°28'43"W	200.00'
L32	N00°31'17"E	200.00'
L33	S89°28'43"E	200.00'

SCALE AS SHOWN
DATE 1/1/11
JOB NO. CYP80002

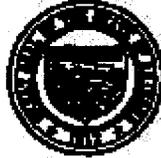
**BOUNDARY EXHIBIT
FOR
BALTIERRA**

THE SURVEYED BOUNDARY AND ASSOCIATED DATA
2011 Survey Station 8000
Project Name 8000
Date 01/01/11

STATE OF ARIZONA
CREATED BY
JOB NO. 408

Exhibit C

STATE OF ARIZONA



Office of the
CORPORATION COMMISSION
CERTIFICATE OF GOOD STANDING

To all to whom these presents shall come, greeting:

I, Brian C. McNeil, Executive Director of the Arizona Corporation Commission, do hereby certify that

*****WATER UTILITY OF GREATER TONOPAH, INC.*****

a domestic corporation organized under the laws of the State of Arizona, did incorporate on October 17, 1983.

I further certify that according to the records of the Arizona Corporation Commission, as of the date set forth hereunder, the said corporation is not administratively dissolved for failure to comply with the provisions of the Arizona Business Corporation Act; and that its most recent Annual Report, subject to the provisions of A.R.S. sections 10-122, 10-123, 10-128 & 10-122, has been delivered to the Arizona Corporation Commission for filing; and that the said corporation has not filed Articles of Dissolution as of the date of this certificate.

This certificate relates only to the legal existence of the above named entity as of the date issued. This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's condition or business activities and practices.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Arizona Corporation Commission. Done at Phoenix, the Capital, this 22nd Day of March, 2008, A. D.



Brian C. McNeil
Executive Director

Order Number: 58015

Exhibit D

MAR-23-2008 THU 03:52 PM

FAX NO.

P. 01/01

**RESOLUTION
OF
WATER UTILITY OF GREATER TONOPAH, INC.**

WHEREAS, the Board of Directors at the annual meeting held on April 20, 2005 duly authorized the President of Water Utility of Greater Tonopah to take actions on behalf of the corporation as necessary or appropriate before the Arizona Corporation Commission, the Arizona Department of Water Resources and the Arizona Department of Environmental Quality;

WHEREAS, certain land owners in the vicinity of the existing Certificate of Convenience and Necessity desire water service from Water Utility of Greater Tonopah; and

WHEREAS, the vacant lands could provide additional growth for this portion of the Water Utility of Greater Tonopah system.

BE IT RESOLVED that the corporation's officers be and hereby are authorized and directed to take any and all action deemed necessary or appropriate to expand the certificated area by adding the area more fully described in Exhibit A attached hereto and incorporated herein by this reference, including, without limitation, retaining attorneys and other consultants and filing and processing an application for inclusion with the Arizona Corporation Commission.

BE IT FURTHER RESOLVED that the President, incidental to the President's duties to the management and operation of the corporation, be and hereby is authorized to act on behalf of the Company before the Arizona Corporation Commission on the aforementioned matter.

DATED this 22th day of March 2006.



John Mihalik, President



John F. Johnson, Secretary

12843-1/pleadings/Ed Resolution for ocn app

Exhibit E

Fronterra Village

January 31, 2006

Mr. John Mihlik, President
Water Utility of Greater Tonopah
3800 N. Central Ave., #770
Phoenix, Arizona 85012

Re: Extension of Water Service by Water Utility of Greater Tonopah to
Baltarra Development

Dear Mr. Mihlik:

Please accept this letter as a formal request for extension of water utility service by the Water Utility of Greater Tonopah ("WUGT") to the master planned development known as Baltarra. As you know, Fronterra Village, LLC ("Fronterra") recently acquired this parcel, which we understand is partially located within WUGT's certificated service area. This letter constitutes Fronterra's formal request for WUGT to extend water utility service to the project.

Briefly, the project encompasses approximately 1,100 acres located in western Maricopa County, upon which Fronterra intends to develop approximately 4,000 residential units. A legal description of the area that is currently not within the WUGT service area and will require water service is attached hereto as Attachment 1.

We understand WUGT may be required to prepare an analysis of demand from our project and several others in the vicinity. We further understand that the analysis is intended to determine the need for and nature of off-site facilities WUGT believes it will need to extend water utility service to our project. From there, engineering design and costs will be determined and our pro rata share of such costs will be allocated and incorporated into a main extension agreement that comports with the requirements of the Arizona Corporation Commission's ("Commission") rules and regulations. We trust that WUGT will move with all possible speed to complete the engineering and contract preparation, as well as obtain any required approvals necessary to meet our need for water utility service to our project.

6720 N. Scottsdale Rd., Suite 250, Scottsdale, AZ 85253

Mr. John Mihlik
January 31, 2006
Page 2

Because our project is only partially located within WUGT's service area, we understand that WUGT will need approval from the Commission to expand its Certificate of Convenience and Necessity so that the entire project can be served. Fronterra will provide WUGT with all information and documents necessary so that a CC&N extension application can be filed with the Commission, as will be more fully addressed in any future water main extension agreement between Fronterra and WUGT.

We look forward to working with you and WUGT on this exciting project. In the meantime, if you have questions or need further information regarding Fronterra's project, please let me know.

Sincerely,


FRONTERRA VILLAGE, LLC

Joel N. Farkas
Manager

JHF:mk
Enclosure

Exhibit F

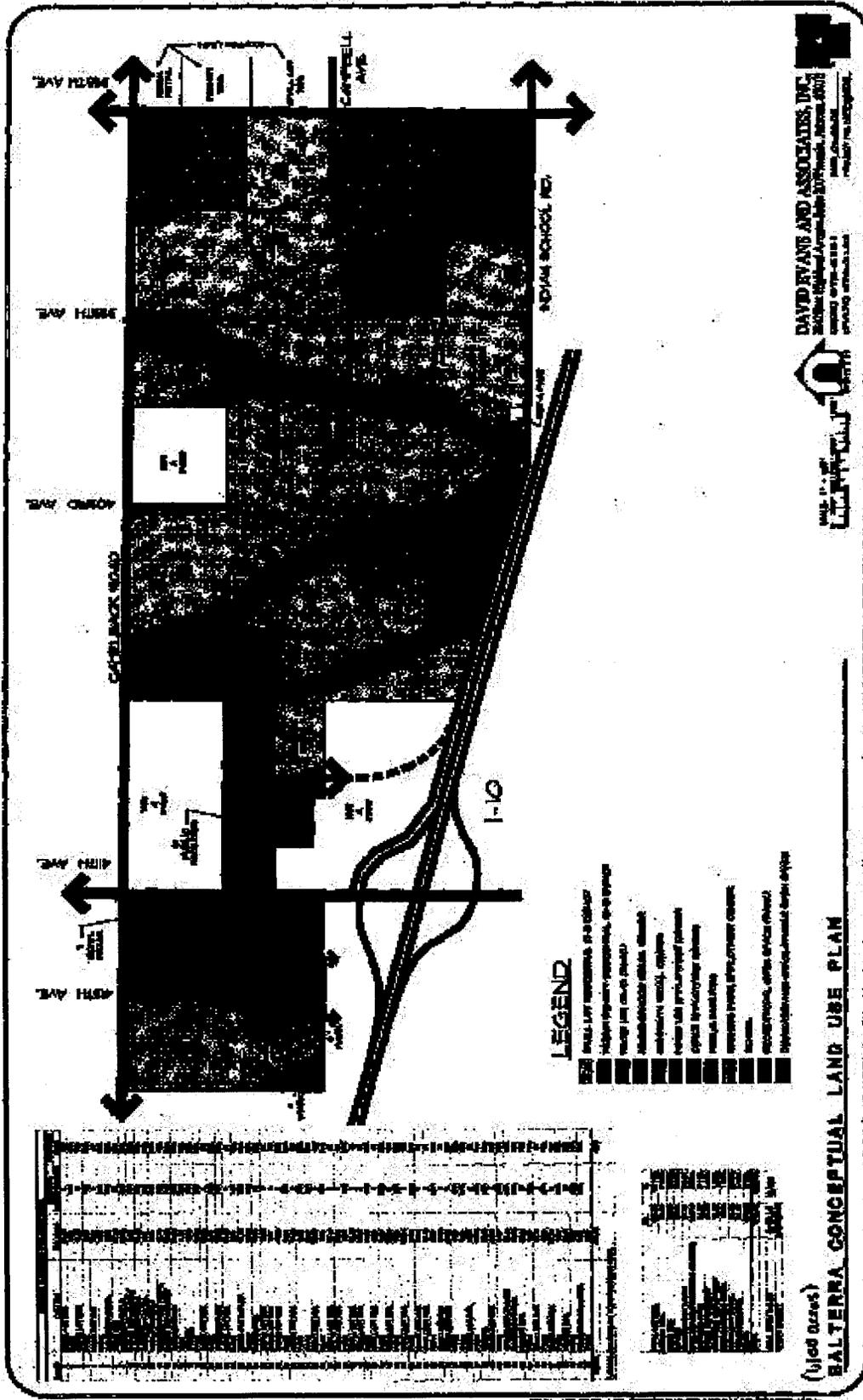


Exhibit G

8/25/2006 14:34

6029657605

502P04

Page 31

In proceedings in this area, a provider will likely have to construct new wells. The Arizona Department of Environmental Quality will require water quality analyses for new sources approved for such wells. This requirement of an Analysis of Assured Water Supply will be considered for such applications for a Certificate of Assured Water Supply.

Consistency with Management Plan for the Phoenix Active Management Area
The proposed demand for the development is consistent with the Water Management Plan for the Phoenix AMA. Demand will use low water use landscaping and plumbing fixtures will comply with the statewide Low Flow Plumbing Code.

Consistency with Management Goal of the Phoenix Active Management Area
The Assured and Adequate Water Supply Rule (A.A.C. § 12-15-702) allows a volume of groundwater to enhance production in an AMA to allow for the growing in of new wells. This groundwater allocation may be limited by underground injection groundwater rights (UGWR). Any groundwater delivery in excess of the groundwater allocation is not through the direct or indirect use of underground water supplies surface water or effluent. Criteria for demonstrating "consistency with management goal" include 1) quantity of surface water or effluent, 2) recharge and recovery of surface water or effluent, or 3) membership in the Central Arizona Groundwater Replenishment District (CARGRD).

The application indicates that the proposed development will avoid the body of the water development, including the construction and open space areas, roads, paths and other non-irrigated areas, in the CARGRD to meet this requirement. The site-specific demands must be assessed and resolved before a Certificate of Assured Water Supply will be issued.

Prior to preparing an application for a Certificate of Assured Water Supply for an individual well-drainage, the Phoenix AMA Office or the Office of Assured Water Supply may be contacted for further guidance.

Financial Capability of the Owner to Construct the Stormwater Retention System
Pursuant to A.A.C. 12-15-707, financial capability will be evaluated by the local planning authority as a part of the process for obtaining a Certificate of Assured Water Supply for each subdivision. The application for a Certificate of Assured Water Supply includes a Verification of Construction Assurances Form Proposed Subdivision Plans. This form should be signed by the appropriate planning entity to provide evidence of financial capability. This requirement of an assured water supply will be considered upon application for a Certificate of Assured Water Supply.

The term of this Analysis of Assured Water Supply is two years from the date of this letter and may be renewed upon request, subject to approval by the Department. Throughout the term of this determination, the projected demand of this development will be considered when reviewing other requests for assured water supply in the area.

Prior to obtaining final approval by the local planning authority and approval of the public report by the Department of Real Estate, a Certificate of Assured Water Supply must be obtained for each subdivision plan. The findings of this Analysis of Assured Water Supply may be used to demonstrate that certain requirements for a Certificate have been met. This determination may be rescinded if the development plan or other conditions change prior to filing for a Certificate of Assured Water Supply.

07/25/2005 14:34

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TYPE: IN

Questions may be directed to the Office of Annual Water Supply at (602) 417-2821.

Mark Frank

**Mark Frank, Acting Assistant Director
Water Management Division**

cc: **Frank, Acting Assistant Director**

Exhibit H

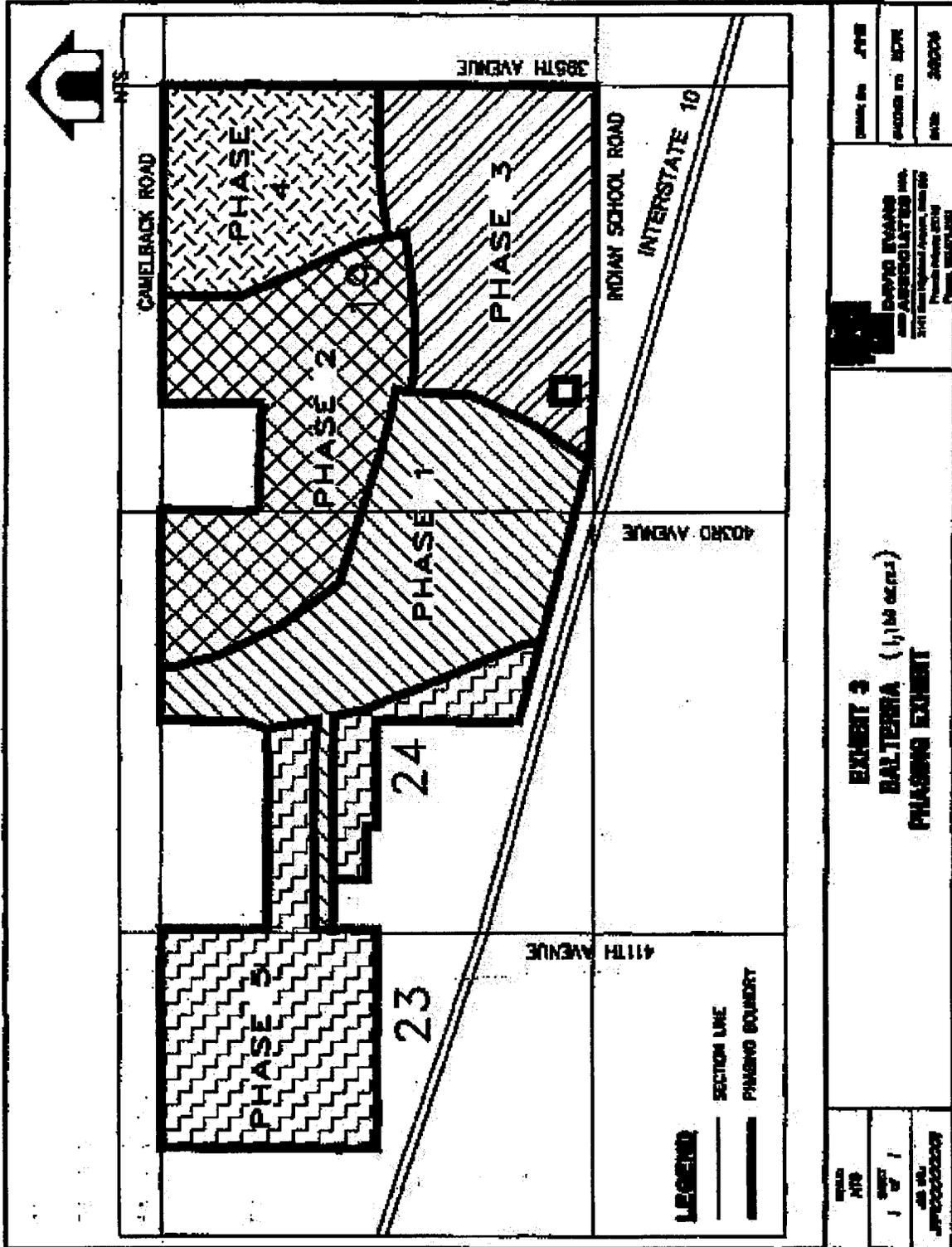


Exhibit I

**Batterra 1,100 Acres Estimated Equivalent Residential DU Demand
and Estimated Water System Cost:**

Calendar Yr	Development Yr	% of Buildout	Equivalent Residential DU/Yr	Total Equivalent Residential DU	Water System Cost
2008	Year 1	14%	860	860	\$6,086,034.00
2009	Year 2	24%	1478	2338	\$1,625,859.00
2010	Year 3	16%	1158	3496	\$1,273,846.00
2011	Year 4	11%	893	4189	\$762,328.00
2013	Year 5	31%	1911	6100	\$2,102,178.00
TOTAL		100%			\$11,860,244.00

Prepared by Jim Condit, Engineer for Batterra.

Exhibit J

WATER USE DATA SHEET

NAME OF COMPANY →	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. →	Sunshine System PWS #07-071

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)	
02/05	73	384	
03/05	76	406	
04/05	80	630	
05/05	80	1,050	
06/05	80	1,368	
07/05	79	1,357	
08/05	83	1,059	
09/05	84	1,149	
10/05	88	939	
11/05	87	743	
12/05	92	698	
01/06	91	463	
02/06	104	744	
Total		10,990	
STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
100,000	1	55-802141	130
Other Water Sources in Gallons per Minute →		GPM	-
Fire Hydrants on System →		Yes	X No
Total Water Pumped Last 13 Months (Gallons in Thousands) →			11,805

WATER USE DATA SHEET

NAME OF COMPANY ----->	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. -->	WPE #1 System PWS #new application

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)	
02/05	1	3	
03/05	1	4	
04/05	1	5	
05/05	1	6	
06/05	1	9	
07/05	1	9	
08/05	1	5	
09/05	1	6	
10/05	1	6	
11/05	1	4	
12/05	2	5	
01/06	2	4	
02/06	2	4	
Total		78	
STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-600209	20
Other Water Sources in Gallons per Minute ----->		GPM	-
Fire Hydrants on System ----->		Yes X	No
Total Water Pumped Last 13 Months (Gallons in Thousands) ----->			94

* High water usage due to the construction of a new well in 2005.

WATER USE DATA SHEET

NAME OF COMPANY	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No.	Garden City/Big Horn System PWS #07-037

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
02/05	15	96
03/05	15	99
04/05	15	115
05/05	14	153
06/05	14	188
07/05	15	186
08/05	15	153
09/05	15	226
10/05	15	151
11/05	15	107
12/05	15	101
01/06	15	91
02/06	15	85
Total		1,751

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
20,000	1	55-804131	30
25,000	1		

Other Water Sources in Gallons per Minute	GPM	-
Fire Hydrants on System	Yes X	No
*Total Water Pumped Last 13 Months (Gallons in Thousands)		2,482

* Well casing damaged in 2005. New well in production. High water usage due to flushing of lines and tank.

WATER USE DATA SHEET

NAME OF COMPANY	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No.	B&D/Buckeye Ranch System PWS #07-618

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)	
02/05	66	226	
03/05	67	279	
04/05	68	352	
05/05	70	526	
06/05	70	943	
07/05	70	972	
08/05	72	733	
09/05	74	468	
10/05	72	423	
11/05	73	398	
12/05	75	336	
01/06	76	339	
02/06	77	343	
Total		6,338	
STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
150,000	1	55-802962	125
5,000	1	55-803811	20
Other Water Sources in Gallons per Minute		GPM	-
Fire Hydrants on System		Yes X	No
Total Water Pumped Last 13 Months (Gallons in Thousands)			7,134

Exhibit K

Water Utility of Greater Tonopah, Inc.
Balance Sheet
December 31, 2005

ASSETS	
PROPERTY, PLANT & EQUIPMENT	1,299,758.73
Construction in Progress	94,489.97
Accumulated Depreciation	<u>(563,755.76)</u>
TOTAL PROPERTY, PLANT & EQUIP.	<u>830,492.94</u>
CURRENT ASSETS	
Cash	2,757.00
Accounts Receivable	8,064.75
Other Receivable	0.00
Prepaid Expense	<u>0.00</u>
TOTAL CURRENT ASSETS	<u>11,621.75</u>
OTHER ASSETS	
Restricted Cash	3,943.15
Deferred Income Taxes	14,876.00
Deferred CAP Costs Fee	25,344.00
Deposits	0.00
Inter-Co Receivable	0.00
Investments	<u>0.00</u>
TOTAL OTHER ASSETS	<u>44,163.15</u>
TOTAL ASSETS	<u><u>886,277.84</u></u>

Water Utility of Greater Tanopah, Inc.
Balance Sheet
December 31, 2005

STOCKHOLDER'S EQUITY & LIABILITIES

STOCKHOLDER'S EQUITY

Common Stock	13,500.00
Additional Paid in Capital	643,183.00
Retained Earnings	(523,822.13)
Net Income	(19,320.58)
	<u>113,540.29</u>

TOTAL STOCKHOLDER'S EQUITY 113,540.29

LONG-TERM DEBT

L-T Debt (Net of C/P) 85,909.86

TOTAL LONG-TERM DEBT 85,909.86

CURRENT LIABILITIES

Current Portion of L-T Debt	3,628.07
Account Payable	0.00
Customer Security Deposits	4,710.00
Current Portion of AIAC	430.48
Accrued Property Taxes	3,012.70
Accrued Sales & Use Taxes	813.41
Accrued Income Tax	0.00
	<u>12,594.66</u>

TOTAL CURRENT LIABILITIES 12,594.66

DEFERRED LIABILITIES

Meter Deposits	63,963.50
Inter-Co Payable	144,730.02
AIAC (Net of C/P)	393,971.42
Contribution for Construction	73,117.69
Amortization of Contributions	(1,549.60)
	<u>674,233.03</u>

TOTAL DEFERRED LIABILITIES 674,233.03

**TOTAL STOCKHOLDER'S EQUITY
& LIABILITIES**

886,277.84

Water Utility of Greater Tonopah, Inc.
Income Statement
For the Twelve Months Ending December 31, 2005

	Current Month	Year to Date
Water Sales	12,797.32	166,126.25
Other Operating Revenue	393.41	4,887.63
TOTAL OPERATING REVENUE	13,190.73	171,013.88
OPERATING EXPENSE		
Wages	1,564.65	23,938.11
Employee Benefits	274.16	2,652.56
IRA Contributions	21.03	243.54
Purchased Power	809.24	10,698.17
Repairs & Maintenance	2,992.11	8,198.78
Water Testing & Treat.	638.48	8,129.82
Outside Services	1,904.57	11,102.13
Management Fees	2,500.00	28,278.00
Transportation	0.00	1,088.44
General Office & Admin.	67.49	1,792.46
Rent	300.00	1,678.40
General Insurance	189.39	2,272.48
Depreciation	3,725.69	58,553.32
Rate Case Expense	675.00	3,308.80
Bad Debt	27.99	868.77
Regulatory/Permits	758.80	2,889.86
Payroll Taxes	384.47	2,329.34
Property Taxes	1,819.34	12,231.42
Income Taxes	600.00	7,208.88
TOTAL OPERATING EXPENSES	18,355.52	186,621.15
EARNINGS (LOSS) FROM OPERATIONS	(5,264.79)	(15,607.27)
OTHER INCOME (EXPENSE)		
Interest Income	0.00	0.00
Interest Expense	(321.93)	(4,218.31)
Other Income (Expense)	0.00	505.88
Income (Tax) Benefit	0.00	0.00
TOTAL OTHER INCOME (EXPENSE)	(321.93)	(3,713.31)
NET EARNINGS (LOSS)	(5,726.72)	(19,320.58)

Exhibit L

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3 Highways), within that portion of Maricopa County, Arizona, known
4 and described as follows, to-wit:

5 Legal Description: See Exhibit A, attached.

6 and not within the confines of any incorporated city or town, and
7 under such restrictions and limitations and upon such terms as the
8 Board of Supervisors may provide, not inconsistent with the laws
9 of the State of Arizona, or the orders and rules of the
10 Corporation Commission of the State of Arizona, and that the Board
11 take such proceedings herein as is provided by the laws of the
12 State of Arizona; and

13 WHEREAS, upon filing said Application, the said Board of
14 Supervisors on the 20th day of March, 1989, ordered that public
15 notice of the intention of said Board to make such grants be given
16 by publishing a notice in the official newspaper of Maricopa
17 County, State of Arizona, and that 9:00 a.m., on the 17th day of
18 April, 1989, at the meeting room of said Board of Supervisors
19 located at 205 West Jefferson Street in the City of Phoenix,
20 Arizona, be set as the time and place of hearing the said
21 Application; and

22 WHEREAS, the said Application coming on regularly for
23 hearing on said day and it appearing by the affidavit of the duly
24 authorized agent of the newspaper said time and place set for the
25 consideration of such Application has been published for at least
26 once a week for the three-week period prior to said date set forth
27 herein, to wit:

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3 Highways), within that portion of Maricopa County, Arizona, known
4 and described as follows, to-wit:

5 Legal Description: See Exhibit A, attached.

6 and not within the confines of any incorporated city or town, and
7 under such restrictions and limitations and upon such terms as the
8 Board of Supervisors may provide, not inconsistent with the laws
9 of the State of Arizona, or the orders and rules of the
10 Corporation Commission of the State of Arizona, and that the Board
11 take such proceedings herein as is provided by the laws of the
12 State of Arizona; and

13 WHEREAS, upon filing said Application, the said Board of
14 Supervisors on the 20th day of March, 1989, ordered that public
15 notice of the intention of said Board to make such grants be given
16 by publishing a notice in the official newspaper of Maricopa
17 County, State of Arizona, and that 9:00 a.m., on the 17th day of
18 April, 1989, at the meeting room of said Board of Supervisors
19 located at 205 West Jefferson Street in the City of Phoenix,
20 Arizona, be set as the time and place of hearing the said
21 Application; and

22 WHEREAS, the said Application coming on regularly for
23 hearing on said day and it appearing by the affidavit of the duly
24 authorized agent of the newspaper said time and place set for the
25 consideration of such Application has been published for at least
26 once a week for the three-week period prior to said date set forth
27 herein, to wit:

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March 29, April 5,
In the issues of the said newspaper on and 12, 1989

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and it appearing that no sufficient protest has been filed by the
qualified electors of the said County petitioning said Board of
Supervisors to deny such license and franchise, and it further
appearing the best interest of Maricopa County will be served by
the granting of said Application and the Franchise referred to
therein;

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NOW, THEREFORE, the Board of Supervisors of Maricopa
County, State of Arizona, acting on behalf of said County does
hereby grant unto the Water Utility of Greater Tonopah, Inc.,
doing business in Maricopa County, Arizona, subject to the terms,
conditions and limitations hereinafter contained, the right,
privilege, license and franchise to construct, maintain and
operate a domestic water distribution system, for a period not to
exceed 25 years or for a period of one (1) year after the
franchised area is annexed by a municipality, whichever is
shorter, for the supplying of this service along, upon, under and
across the public highways, roads, alleys and thoroughfares
(excepting State Highways) within that portion of Maricopa County,
Arizona, hereinabove described, under such restrictions and
limitations and upon such terms as this Board at any time may
provide, not inconsistent with the laws of the State of Arizona,
or the orders and rules of the Corporation Commission of the State
of Arizona, specifically providing, however, that:

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- 1) All rights hereunder are granted under the express condition that the Board of Supervisors of said Maricopa County shall have the power at any time to impose such restrictions and limitations and to make such regulations on such highways, roads, and thoroughfares as may be deemed best for the public safety, health, welfare and convenience.
- 2) All rights hereby granted shall be exercised so as not to interfere or conflict with any easements, or rights-of-way heretofore granted by said Board of Supervisors and now in force.
- 3) All rights hereby granted shall be exercised so as not to interfere or conflict with any easement, either public or private, of whatsoever nature, which has been acquired in or to the proper use of said highway, roads, and thoroughfares, or any portion thereof.
- 4) All rights hereby granted shall be exercised so as not to interfere or conflict with or endanger in any way the proper use by the public of said highways, roads, and thoroughfares, or any portion thereof.
- 5) That the said Grantees shall bear all expenses incurred including damages and compensation for the alteration of the course, direction, surface, grade

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3 or alignment of any of the said highways, roads and
4 thoroughfares necessarily made by the said Grantee
5 for the purpose of this Franchise; that said
6 Grantee will maintain his equipment from time to
7 time as the same may be needed, without the
8 necessity of notice from Maricopa County. In the
9 event the said Grantee shall fail to make any
10 repairs within ten days from the time same become
11 necessary, then Maricopa County may cause the same
12 to be made, and said Grantee agrees to pay Maricopa
13 County the cost thereof.

14 6) That all property of the franchise be installed and
15 operated by the said Grantee and shall be placed,
16 removed or relocated, initially and throughout the
17 term of this Franchise, along, in, over, under and
18 across the said highways, roads and thoroughfares,
19 in such a manner and location as the Board of
20 Supervisors or its duly authorized agents may
21 designate. Such placement, removal or relocation
22 shall be done at the sole expense of the Grantee
23 upon a determination by the Board of Supervisors of
24 Maricopa County that such placement, removal or
25 relocation is necessary.

26 If the Grantee fails or refuses to so remove or
27 relocate, Maricopa County may so remove or relocate, at the sole
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3 expense of Grantee, such expense to include any and all damages
4 and compensation of whatsoever nature arising therefrom.

5 In this section the term "property" includes conduits,
6 pipe, wires, poles, or other structures and appliances used to
7 supply or deal in gas, electricity, lights, water, heat,
8 refrigeration, power, telephones, telegraph, television and other
9 public utilities.

10 Any finding or determination made by the Board of
11 Supervisors pursuant hereto shall be final and binding upon the
12 Grantee whether or not such findings or determinations relate to
13 the requirements of public safety or welfare, the use of public
14 roads or the need for proposed improvements, and whether or not
15 the function to be served by such removal or relocation is of a
16 governmental or proprietary nature.

17 7) That said Grantee shall indemnify and save harmless
18 the said County of Maricopa from all costs,
19 expenses and liabilities in connection with the
20 granting of this Franchise and exercise of the same
21 by them.

22 8) That the rights of any person claiming to be
23 injured in any manner by the maintenance of said
24 projects and equipment shall not be affected
25 hereby.
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- 9) That the terms and conditions of this Franchise shall inure to the benefit of, and be binding upon, all the heirs and assigns of the said Grantee.
- 10) That the franchise and privilege herein granted shall not be deemed to be exclusive and the said Board of Supervisors hereby expressly reserves the right and power to grant from time to time similar franchises and privileges over the same territory and highways, roads and thoroughfares.
- 11) This Franchise is granted upon the express condition that a Certificate of Convenience and Necessity be procured from the Corporation Commission of the State of Arizona within six months from the date of granting of this Franchise; and if such Certificate is not granted within twelve months from said date, then this Franchise to be void, otherwise to be in full force and effect for the time herein specified.
- 12) All materials and construction methods used within the public right-of-way shall conform to the applicable standards, specifications and special provisions currently in effect in Maricopa County.

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13) The Franchise holder shall obtain a construction permit from the office of the County Engineer prior to construction of any facilities in the public right-of-way.

DATED this 17th day of April, 1989


Chairman

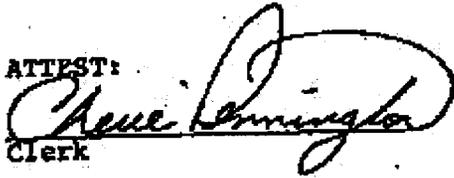
ATTEST:

Clerk

EXHIBIT A

LEGAL DESCRIPTION

FRANCHISE: WATER UTILITY OF GREATER TONOPAH, INC.

T1N R10W: SS 12,13

T1N R9W: SS 1,2,3,7,8,9,10,11,12,16,17,18

T1N R8W: SS 1,2,3,4,5,6

T2N R9W: SS 12,13,24,25,36

T2N R8W: SS 7,8,9,10,11,12,
13,14,15,16,17,18,
19,20,21,22,23,24,
25,26,27,28,29,30
31,32,33,34,35,36

T2N R7W: SS 7,8,9,10,11,
13,14,15,16,17,18,
19,20,21,22,23,24,
25,26,27,28,29,30,
31,32,33,34,35,36

T1N R7W: SS 1,2,3,4,5,6,
10,11,12,13,14,15,
22,23,24

T2N R6W: SS 18,19,20,21,22,23
25,26,27,28,29,30,
31,32,33,34,35,36

T1N R6W: SS 1,2,3,4,5,6,
7,8,9,10,11,12,
13,14,15,16,17,18,
19,20,21,22,23,24,
25,26,27,28,36

T1S R6W: S 1

T2N R5W: SS 27,28,29,30
31,32,33,34

T1N R5W: SS 3,4,5,6,
7,8,9,10,
15,16,17,18,
19,20,21,22,
27,28,29,30,
31,32,33,34

T1S R5W: S5 3,4,5,6,7,8,9,10

of the Gila and Salt River Base and Meridian, Maricopa
County, Arizona.

EXHIBIT M

**PUBLIC NOTICE OF AN APPLICATION FOR AN
EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY
BY WATER UTILITY OF GREATER TONOPAH, INC.**

Water Utility of Greater Tonopah, Inc. has filed with the Arizona Corporation Commission ("Commission") an application for an extension of its Certificate of Convenience and Necessity to provide water service. Our records indicate that you are either currently a customer of Water Utility of Greater Tonopah, Inc. or are a property owner in the proposed extension area. If the application is granted, Water Utility of Greater Tonopah, Inc. would be the exclusive provider of water service to the proposed area. Water Utility of Greater Tonopah, Inc. will be required by the Commission to provide this service under the rates and charges and terms and conditions established by the Commission. The granting of the application would not necessarily prohibit an individual from providing service to themselves from individually owned facilities on their property. The application is available for inspection during regular business hours at the offices of the Commission in Phoenix at 1200 W. Washington Street, and at Water Utility of Greater Tonopah, Inc. in Phoenix at 3800 N. Central Avenue, Suite 770.

The Commission will hold a hearing on this matter. As a property owner, or customer, you may be entitled to intervene in the proceeding. If you do not want to intervene, you may appear at the hearing and make a statement on your own behalf. You may contact the Commission at the address and telephone number listed below for the date and time of the hearing and for more information on intervention. You may not receive any further notice of the proceeding unless requested by you.

If you have any questions or concerns about this application or have any objections to its approval, or wish to make a statement in support of it, you may contact the Consumer Services Section of the Commission at 1200 W. Washington Street, Phoenix, Arizona, 85007 or call 1-800-222-7000/400.

EXHIBIT 2

BEFORE THE ARIZONA CORPORATION COMMISSION

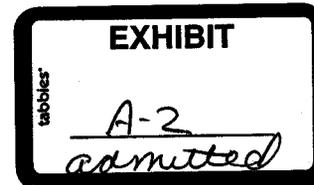
RECEIVED

COMMISSIONERS

MIKE GLEASON, CHAIRMAN
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

2007 JUN 14 P 4: 12

AZ CORP COMMISSION
DOCKET CONTROL



IN THE MATTER OF THE APPLICATION OF
WATER UTILITY OF GREATER TONOPAH,
INC., AN ARIZONA CORPORATION, FOR AN
EXTENSION OF ITS EXISTING CERTIFICATE
OF CONVENIENCE AND NECESSITY.

Docket No. W-02450A-06-0253

NOTICE OF FILING
AFFIDAVIT OF PUBLICATION
AND AFFIDAVIT OF MAILING

The Water Utility of Greater Tonopah ("Tonopah"), submits the attached affidavit of publication and affidavit of mailing.

RESPECTFULLY SUBMITTED this 14th day of June 2007.

ROSHKA DEWULF & PATTEN, PLC

By Timothy J. Sabo

Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original + 13 copies of the foregoing
filed this 14th day of June, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

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Copies of the foregoing hand-delivered/mailed
this 14th day of June 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By 

WEST VALLEY BUSINESS

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AFFIDAVIT OF PUBLICATION

State of Arizona

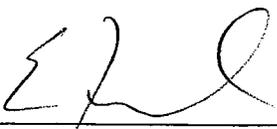
County of Maricopa

I, Elliott Freireich, publisher of West Valley View and West Valley Business, newspapers of general circulation in Avondale, Buckeye, Goodyear, Litchfield Park and Tolleson, Arizona, attest that the legal advertisement for

*Water Utility of Greater Tonopah, Inc.
Public notice - hearing for an extension of
its certificate of convenience and necessity
Docket number W-02450A-06-0253*

will be / has been published on

June 12, 2007.



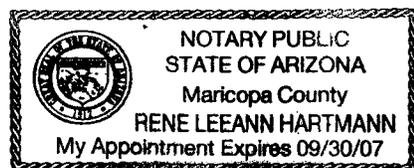
Elliott Freireich
President, West Valley View Inc.

SUBSCRIBED AND SWORN TO BEFORE ME ON THE

June 12, 2007. 12 DAY OF June (Month), 2007 (YEAR)

NOTARY SIGNATURE:

Rene Leeann Hartmann



**PUBLIC NOTICE OF HEARING IN THE MATTER OF THE APPLICATION
OF WATER UTILITY OF GREATER TONOPAH, INC.,
AN ARIZONA CORPORATION, FOR AN EXTENSION OF
ITS CERTIFICATE OF CONVENIENCE AND NECESSITY.**

**DOCKET NUMBER
W-02450A-06-0253**

On April 14, 2006, Water Utility Of Greater Tonopah, Inc., an Arizona Corporation, ("Applicant") filed with the Arizona Corporation Commission ("Commission") an application for an extension of its Certificate of Convenience and Necessity to provide domestic water service in portions of Section 19, Township 2 North, Range 6 West, Gila & Salt River Basin and Meridian, in Maricopa County, Arizona. The extension area includes portions of the Balterra Development. The Commission's Utilities Division Staff ("Staff") has not yet made a recommendation regarding the application, and the Commission is not bound by the proposals made by the Applicant, Staff, or any intervenors. The Commission will issue a decision regarding the application following consideration of testimony and evidence presented at an evidentiary hearing.

If the application is granted, the Applicant would be the exclusive provider of water utility service in the proposed extension area and would be required by the Commission to provide service under rates and charges and terms and conditions established by the Commission. Copies of the application will be available at the Applicant's offices located at Global Water, 21410 N. 19th Ave. Suite 201, Phoenix, AZ 85027 and the Commission's offices at 1200 West Washington, Phoenix, Arizona, for public inspection during regular business hours and on the internet via the Commission website (www.azcc.gov) using the e-docket function. The Commission will hold a hearing on this matter beginning July 31, 2007, at 1:30 p.m., at the Commission's offices, 1200 West Washington, Phoenix, Arizona. Public comments will be taken on the first day of the hearing. Written public comments may be submitted via email (visit <http://www.azcc.gov/utility/cons/index.htm> for instructions), or by mailing a letter referencing Docket Number W-02450A-06-0253 to: Arizona Corporation Commission, Consumer Services Section, 1200 West Washington, Phoenix, AZ 85007. If you require assistance, you may contact the Consumer Services Section at 1-800-222-7000.

The law provides for an open public hearing at which, under appropriate circumstances, interested parties may intervene. Any person or entity entitled by law to intervene and having a direct and substantial interest in the matter will be permitted to intervene. If you would like to intervene, you must file a written motion to intervene with the Commission, and you must send copies of the motion to the Applicant or its counsel, and to all parties of record in the case. Your motion to intervene must contain the following:

1. Your name, address, and telephone number, and the name, address, and telephone number of any party upon whom documents are to be served in your place, if desired.
2. A short statement of your interest in the proceeding (e.g., a customer of the Applicant, a shareholder of the Applicant, etc.).
3. A statement certifying that a copy of your motion to intervene has been mailed to the Applicant or its counsel and to all parties of record in the case.

Arizona Administrative Code R14-3-105 governs the granting of intervention, except that all motions to intervene must be filed on or before **July 13, 2007**. The granting of intervention, among other things, will entitle an intervenor to present sworn evidence at hearing and to cross-examine other witnesses. However, failure to intervene will not preclude any customer from appearing at the hearing and making a statement on such customer's own behalf.

The Commission does not discriminate on the basis of disability in admission to its public meetings. Persons with a disability may request a reasonable accommodation such as a sign language interpreter, as well as request this document in an alternative format, by contacting the ADA Coordinator Linda Hogan, E-mail Lhogan@azcc.gov, voice phone number (602)542-3931. Requests should be made as early as possible to allow time to arrange the accommodation.

Published in the West Valley View, and the West Valley Business, on June 12, 2007.

AFFIDAVIT OF MAILING

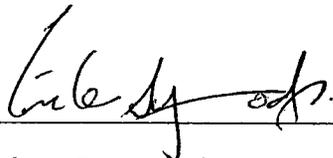
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AFFIDAVIT OF PROOF OF MAILING
Docket No. W-02450A-06-0253

STATE OF ARIZONA)
) ss.
County of Maricopa)

I, Graham Symmonds, states as follows:

1. I am the CTO of Compliance & Regulatory Affairs for Global Water Resources.
2. I certify that a copy of the attached notice, pursuant to Procedural Order issued June 6th, 2007 in Docket No. W-02450A-06-0253 was mailed via U.S. First-Class Mail on June 12th, 2007 to all landowners within the requested extension area of Water Utility of Greater Tonopah.



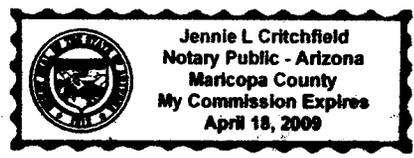
Graham Symmonds

SUBSCRIBED AND SWORN to before me by Graham Symmonds, this 12th day of June, 2007.



Notary Public

My Commission Expires: 4/18/2009



PUBLIC NOTICE OF HEARING IN THE MATTER OF
THE APPLICATION OF WATER UTILITY OF GREATER TONOPAH, INC.,
AN ARIZONA CORPORATION, FOR AN EXTENSION OF
ITS CERTIFICATE OF CONVENIENCE AND NECESSITY.
DOCKET NUMBER W-02450A-06-0253

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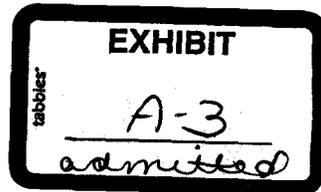
BEFORE THE ARIZONA CORPORATION COMMISSION
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COMMISSIONERS

MIKE GLEASON - Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

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AZ CORP COMMISSION
DOCKET CONTROL



IN THE MATTER OF THE APPLICATION OF)
WATER UTILITY OF GREATER TONOPAH,)
INC., AN ARIZONA CORPORATION, FOR AN)
EXTENSION OF ITS CERTIFICATE OF)
CONVENIENCE AND NECESSITY.)

DOCKET NO. W-02450A-06-0253

NOTICE OF FILING
AMENDED ENGINEERING
DATA

The Water Utility of Greater Tonopah ("Tonopah") files the attached Preliminary Design Report, which was provided to Staff by email on January 12, 2007. This report supersedes the engineering data in the original application in this case.

RESPECTFULLY SUBMITTED this 16th day of May 2007.

ROSHKA DEWULF & PATTEN, PLC

By Michael W. Patten

Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original and 13 copies of the foregoing filed this 16th day of May 2007 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

1 Copy of the foregoing hand-delivered/mailed
2 this 16th day of May 2007 to:

3 Lyn Farmer, Esq.
4 Chief Administrative Law Judge
5 Hearing Division
6 Arizona Corporation Commission
7 1200 West Washington
8 Phoenix, Arizona 85007

9 Christopher C. Kempley
10 Chief Counsel, Legal Division
11 Arizona Corporation Commission
12 1200 West Washington
13 Phoenix, Arizona 85007

14 Ernest G. Johnson, Esq.
15 Director, Utilities Division
16 Arizona Corporation Commission
17 1200 West Washington
18 Phoenix, Arizona 85007

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By 

WATER UTILITY OF GREATER TONOPAH, INC.

**Balterra CCN Expansion Area
Preliminary Design Report**

Prepared for:

**Water Utility of Greater Tonopah, Inc.
22601 N. 19th Avenue
Phoenix, AZ 85027**

Submitted to:

**Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007
Docket No. W-02450A-06-0253**

Prepared by:

**Jason Bethke, PE
Bethke Engineering
4120 E. Earll Drive
Phoenix, AZ 85018**

January 12, 2007

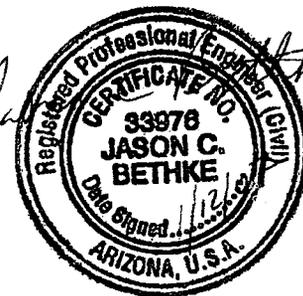


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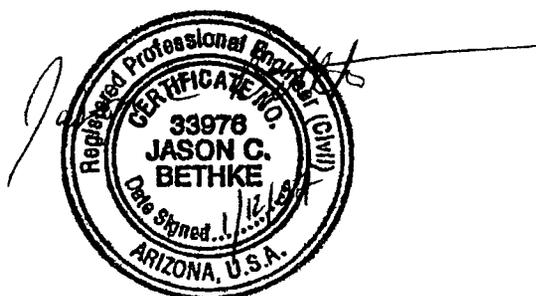
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A. INTRODUCTION

In 2006, Global Water Management, LLC acquired the assets of the West Maricopa Combine, Inc., which includes the Water Utility of Greater Tonopah, Inc. (WUGT). The WUGT is currently expanding their Certificate of Convenience and Necessity (CCN) to include the entire Balterra Development; the current CCN includes only a portion of the Balterra Development.

This document is intended to clarify how WUGT intends to serve the entire Balterra Development, including areas within and outside the existing CCN boundary. The entire Balterra development covers 1100 acres, while the extension area only covers 480 of that total, or approximately 44%.

B. DEVELOPMENT PROJECTIONS

Development projections are based on information provided to WUGT by Balterra developers. The development is primarily comprised of small lot residential uses, with interspersed medium lot residential and office/retail uses. The estimated equivalent dwelling units (EDUs) to be constructed by the entire Balterra Development are presented in **Table 1 – EDU Estimates for Entire Balterra Development**. **Table 2 – EDU Estimates for CCN Expansion Area** addresses only the portion of the Balterra Development that is not included in the current CCN. The values in this table were generated by proportioning the EDUs based on land area. Both tables include EDU projections for the first five years and build-out.

Table 1 – EDU Estimates for Entire Balterra Development						
1100 acres						
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Build-out
EDU Estimated for Entire Balterra Development	300	780	1260	1870	2770	6100

Table 2 – EDU Estimates for CCN Expansion Area						
480 acres						
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Build-out
EDU Estimated for CCN Expansion Area	131	340	550	816	1209	2662

C. INFRASTRUCTURE REQUIRED TO SERVE BALTERRA DEVELOPMENT

The primary infrastructure required to service the development will include wells, storage reservoirs, booster stations and treatment systems. The design conditions for these facilities were developed using the following assumptions:

- Average Water Usage 120 gallons per capita, per day
- Population per EDU 3.0
- Maximum Day Demand Factor 2
- Peak Hour Water Demand Factor 3.4
- Fire Flow 1,500 gallons per minute (gpm)

Table 3 – Cumulative Water Requirements for Entire Balterra Development presents water requirements based on the EDU and design assumptions identified above.

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Buildout
Average Day Water Demand (gpd)	108,000	280,800	453,600	673,200	997,200	2,196,000
Maximum Day Water Demand (gpd)	216,000	561,600	907,200	1,346,400	1,994,400	4,392,000
Peak Hour Water Demand (gpd)	367,200	954,720	1,542,240	2,288,880	3,390,480	7,466,400

Utilizing these water requirements, infrastructure requirements were developed for the first five years of the entire Balterra Development as presented in **Table 4 – Cumulative Infrastructure Requirements for the Entire Balterra Development**. Storage requirements were based providing storage for average day peak month with one well out of service and an 80 percent service factor. Please note it is expected the first phase of the reservoir construction will exceed this projection. Booster station pumping requirements were based on meeting maximum day plus fire flow or peak hour, whichever was greater.

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Buildout
Wells (500 gpm estimated production)	2	2	2	2	2	4
Storage Requirement (MG)	0.0	0.0	0.0	0.2	0.8	2.8
Booster Station Capacity (gpm)	1,650	1,890	2,130	2,435	2,885	5,185
Treatment System Capacity (gpd) (Avg Day x 1.5)	162,000	421,200	680,400	1,009,800	1,495,800	3,294,000

Table 5 – Unit Costs were developed to estimate the costs of providing service to the Balterra Development. Please note that treatment of the arsenic and fluoride waste stream is necessary to prevent discharging this waste to a sewer. These costs were developed in more detail in Section E – Conceptual Plan for Serving the Entire Balterra Development of this document, but are included here to capture all applicable costs.

Table 5 - Unit Costs		
Description	Unit	Unit Cost
Wells	gpm	\$1,500.00
Storage Reservoirs	gal	\$1.00
Booster Stations	gpm	\$500.00
Arsenic and Fluoride Treatment Systems	gpd	\$1.00
Wastewater Treatment for Arsenic and Fluoride Treatment Systems – Years 1-5 Requirement	EA	\$600,000

Combining Table 4 – Cumulative Infrastructure Requirements for the Entire Balterra Development and Table 5 – Unit Costs produces Table 6 - Infrastructure Costs for the Entire Balterra Development. This cost estimate is representative of the five year planning window. As such, the well and a one million gallon storage reservoirs will be installed during the first year of construction, while expandable systems (treatment and booster stations) will be initially built in year one and expanded in year 3.

Table 6 - Infrastructure Costs for Entire Balterra Development							
1100 Acres							
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total Years 1-5	Build-out
Wells	\$1,500,000	\$0	\$0	\$0	\$0	\$1,500,000	\$3,000,000.00
Storage Reservoirs	\$782,775	\$0	\$0	\$0	\$0	\$782,775	\$2,805,750.00
Booster Stations	\$1,065,000	\$0	\$377,500	\$0	\$0	\$1,442,500	\$2,592,500.00
Treatment Systems	\$680,400	\$0	\$615,400	\$0	\$0	\$1,495,800	\$3,294,000.00
Treatment System Waste Treatment	\$400,000	\$0	\$200,000	\$0	\$0	\$600,000	\$1,321,299.64
Totals	\$4,428,175	\$0	\$1,392,900	\$0	\$0	\$6,821,075	\$13,013,648.64

As Table 6 –Infrastructure Costs for the Entire Balterra Development presents the costs for the entire 1100 acres, it is necessary to provide similar information for the portion of the 1100 acre Balterra Development that is not currently located within the existing CCN. This analysis is included in Section D. Infrastructure Required to Serve CCN Expansion Area.

D. INFRASTRUCTURE REQUIRED TO SERVE CCN EXPANSION AREA

The infrastructure required to serve the CCN expansion area is provided with the estimated cost sharing for the infrastructure, as determined by land area.

Table 7 – Cumulative Infrastructure Requirements for CCN Expansion Area presents the cumulative infrastructure required for only the CCN expansion area.

Table 7 – Cumulative Infrastructure Requirements for CCN Expansion Area						
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Buildout
Wells (1,000 gpm estimated production)	1	1	1	1	1	1
Storage Requirement (MG)	0.05	0.12	0.20	0.29	0.44	0.96
Booster Station Capacity (gpm)	720	825	929	1,063	1,259	2,263
Treatment System Capacity (gpd) (Avg Day x 1.5)	70,691	183,796	296,902	440,640	652,713	1,437,382

The required infrastructure for the CCN expansion area cost estimates was identified using **Table 5 – Unit Costs. Table 8 – Infrastructure Costs for CCN Expansion Area** presents the infrastructure costs for the CCN expansion area.

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total Years 1-5	Build-out
Wells	\$654,545	\$0	\$0	\$0	\$0	\$654,545	\$1,309,090.91
Storage Reservoirs	\$341,575	\$0	\$0	\$0	\$0	\$341,575	\$1,224,327.27
Booster Stations	\$464,727	\$0	\$164,727	\$0	\$0	\$629,455	\$1,131,272.73
Treatment Systems	\$296,902	\$0	\$355,911	\$0	\$0	\$652,713	\$1,437,381.82
Treatment System Waste Treatment	\$174,545	\$0	\$87,273	\$0	\$0	\$261,818	\$576,567.12
Totals	\$1,932,295	\$0	\$607,811	\$0	\$0	\$2,540,105	\$5,678,639.84

E. CONCEPTUAL PLAN FOR PROVIDING SERVICE TO BALTERRA

The Balterra Development conceptual land use plan presented in **Figure 1 – Conceptual Land Use Plan for the Entire Balterra Development** (provided by David Evans and Associates, Inc.) presents the proposed location of the water distribution facility (water campus) at Camelback Road and approximately 405th Avenue. **Figure 2 – Preliminary Water Campus for the Entire Balterra Development** presents the build-out of the proposed water campus.

Implementation

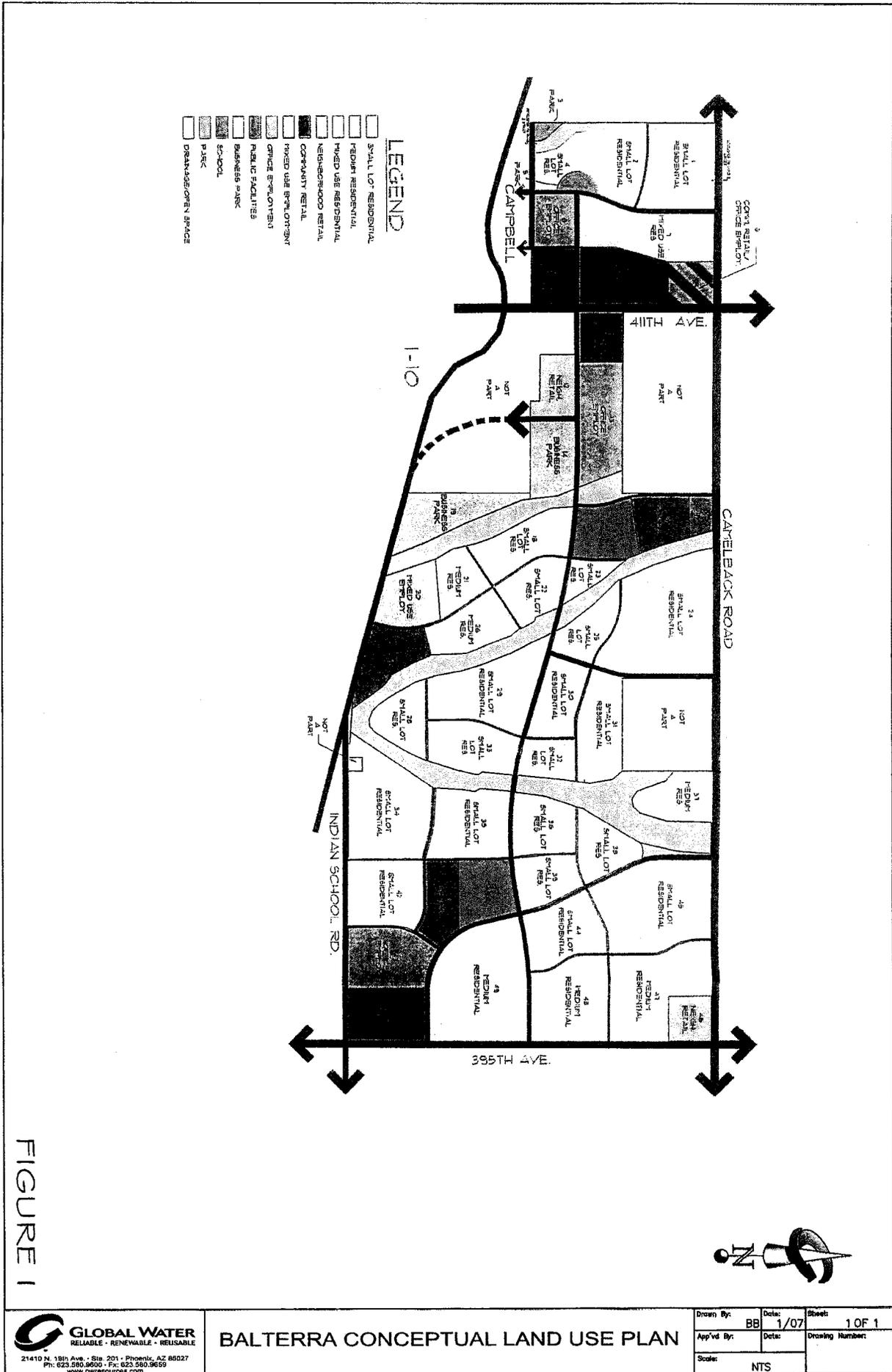
Several alternatives are being considered to regionalize the distribution of water facilities within the WUGT service area. However, because a final decision is pending, it is necessary to provide a description of the plan to serve the first five years of the entire Balterra Development, both within and outside the existing CCN boundary.

Prior to construction of housing units within the Balterra Development, the following facilities will be constructed on the proposed water campus:

- A one-million gallon water reservoir
- A 5000 gallon pressure tank to provide for surge protection
- A booster station with a firm capacity of 2,885 gpm complete with variable speed drives. The booster station will initially be constructed to provide the capacity projected at year three. Phase 2 of the booster station will increase the firm capacity to 2,885 gpm.
- Two wells estimated to produce 500 gpm each for a total of 1000 gpm

Because the arsenic and fluoride concentrations documented in the vicinity exceed maximum contaminant levels established under the Safe Drinking Water Act, treatment for both appears to be required. Thus in addition to the facilities described above, the following will be constructed:

- A media-based arsenic/fluoride treatment system – The proposed media system is an activated alumina media system followed by a granular ferric hydroxide (GFH). The activated alumina will remove fluoride and a portion of the arsenic. GFH media will



be provided to ensure arsenic removal, as the extent of arsenic removal by activated alumina has not been pilot tested in this area.

Figure 2 – Preliminary Water Campus for Entire Balterra Development provides the location details for these facilities.

It will be necessary to address the waste streams generated by the fluoride (activated alumina) and arsenic (GFH) treatment system. The waste streams are generated through backwashing and possible regeneration of the media. Because no process waste will be discharged to the sewer, the treatment process will be required to evaporate its waste stream.

Arsenic treatment systems (GFH) can be operated with as little as 0.5 % wastewater produced, significantly less than that generated by an activated alumina system.

The activated alumina treatment system for fluoride requires the regeneration of the media. As a result this system generates more wasted water. The following design requirements were used to generate the estimated waste stream volumes from both processes:

- | | |
|---|-------------------------|
| • Arsenic Media Treatment Waste Stream | 0.5% of treated water |
| • Activated Alumina System | |
| ○ Time between regenerations | 2 weeks |
| ○ Backwash rate | 5 times design capacity |
| ○ Caustic flush duration | 15 minutes |
| ○ CO ₂ neutralization flush duration | 15 minutes |
| • Standard Reverse Osmosis Recovery Rate | 80% |
| • Assumed Evaporation Rate in Phoenix, AZ | 70 inches/year |

Table 9 – Waste Generation and Evaporation Calculations for the Entire Balterra Development presents the process calculations utilized to estimate the waste stream produced by the treatment system.

Table 9 – Waste Generation and Evaporation Calculations for the Entire Balterra Development	
Description	Cumulative Year 5 Requirements
Treatment Required (gpd) - Based on Avg. Day Demand	997,200
Treatment Required (gpm)	1,000
Arsenic Waste Stream(gpd) @ 0.5%	4,986
Activated Alumina Waste Stream	
Backwash Flow Rate (gpm)	5,000
Backwash Duration (NaOH&CO2) (min)	30
Activated Alumina Waste Stream per Regeneration (gal)	150,000
Regenerations per year	26
Yearly Waste Stream from Activated Alumina (gal)	3,900,000
Yearly Waste Stream from Arsenic Treatment (gal)	1,819,890
Total Waste Generated per year (gal)	5,719,890
Total Waste Generated per year (ft ³)	764,691
Evaporation Rate in Phoenix (inches)	70
Acre required to evaporate waste stream without RO (acres)	3.0
Standard RO Recovery Rate (%)	80
Waste Generated with RO Waste Treatment (gal)	1,143,978
Waste Generated with RO Waste Treatment (ft ³)	152,938
Acres required to evaporate waste stream with RO (acres)	0.6

Based on the calculations, the waste stream will require treatment by a reverse osmosis (RO) unit to reduce the volume of water to be evaporated. The concentrated waste stream will contain arsenic and fluoride and will be evaporated. The permeate generated by the RO unit can be utilized for drinking water.

In order to implement this waste stream treatment, it will be necessary to install a 0.60-acre evaporation pond, a 235,000-gallon storage tank, and a small RO unit to treat the waste generated by the backwash and regeneration processes. The backwash tank is oversized to account for the cumulative effect of storing water. The following costs were added to the treatment system costs (as previously presented in **Tables 6 and 8**):

• 235,000-Gallon Storage Tank	\$200,000
• 0.60 -acre Evaporation Pond	\$300,000
• Small 50 gpm RO Unit	\$100,000
Total Waste Stream Treatment Costs	\$600,000

F. RESPONSES TO QUESTIONS POSED BY DOROTHY HAINS ON 12-11-06

- 1) *Is the well production rate adequate to supply growth?*

The Potable Water Master Plan for the Tonopah Desert Area estimated the well capacity in the area at 1,000 gpm (Table 3.4, Page 22 of 51). This capacity is adequate to supply growth as indicated in **Table 4 – Cumulative Infrastructure Requirements for the Entire Balterra Development** of this document.

- 2) *What is the size of the pressure tank?*

The pressure tank provided for the water campus will be sized to handle system surges. The booster station will utilize variable speed drives to address varying demands within the distribution system; therefore, the pressure tank will be designed with the booster station, but has been estimated to be 5,000 gallons.

- 3) *Is there adequate space to install a treatment plant at the water distribution campus?*

Yes, preliminary plans for the water campus include two, one million gallon reservoirs as presented in **Figure 2 – Preliminary Water Campus for Entire Balterra Development**. Construction of the second, one million gallon reservoir will not be required within the first five years of development construction. Therefore, the evaporation pond will be located in the area planned for the second, one million gallon reservoir. Future expansions of the site may require additional treatment of the waste stream generated by the arsenic/fluoride treatment system.

- 4) *Provide a cost estimate for the proposed treatment facility.*

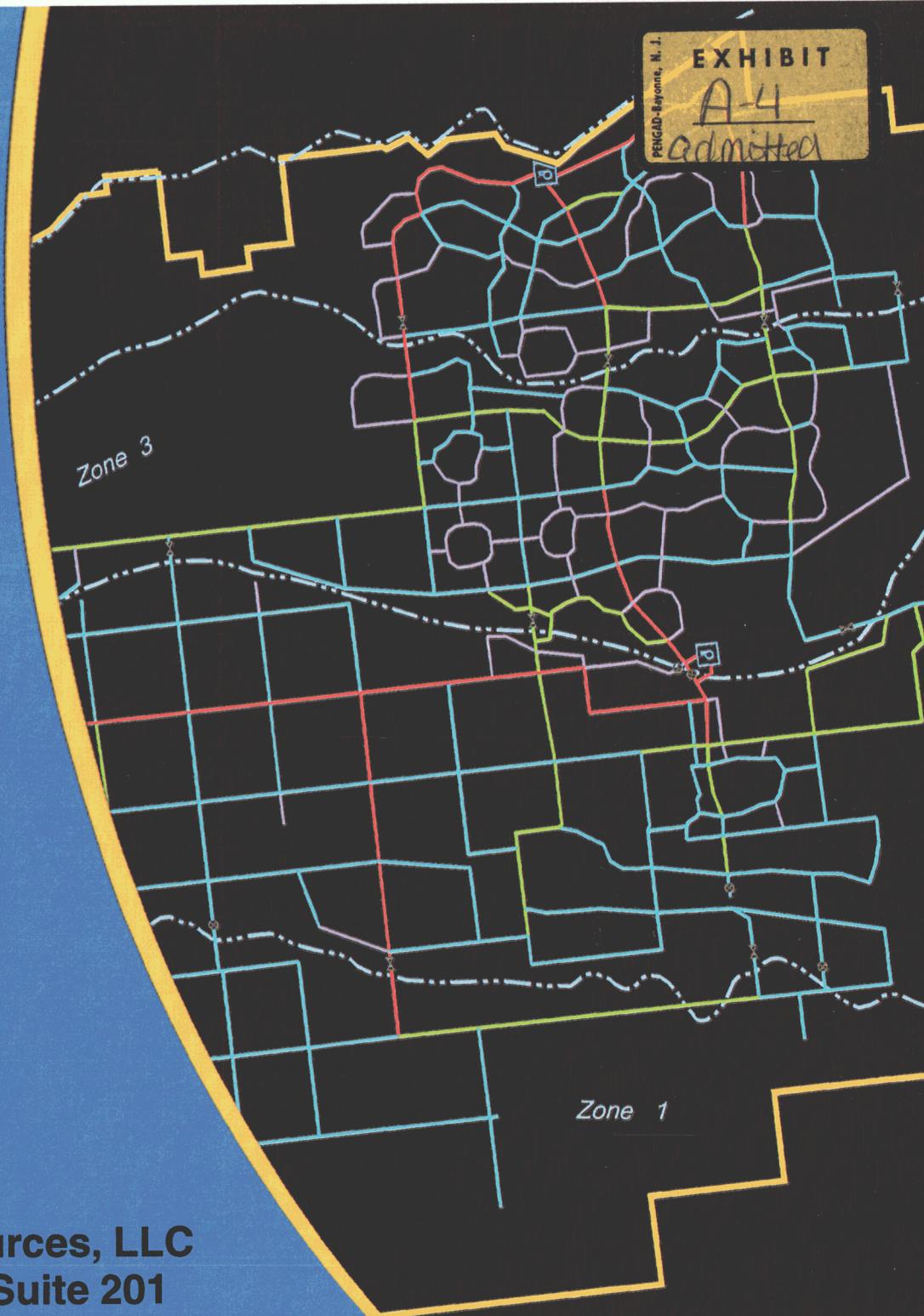
The estimated costs for the CCN expansion area are provided in **Table 8 – Infrastructure Costs for CCN Expansion Area**, and include the cost of the wells, storage reservoirs, booster stations and treatment systems.



Water Utility of Greater Tonopah Water Master Plan

June 2007

PENGAD-Bygonne, N. J.
EXHIBIT
A-4
admitted



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1.0 Introduction

Global Water recently acquired the Water Utility of Greater Tonopah (WUGT) as a new subsidiary. The WUGT is the major water provider in the area of Maricopa County to the west of the Hassayampa River. As such, they are responsible for providing water services to the existing and proposed communities in this area. Global Water and WUGT recognize the need to provide a regional planning document that will aid them in implementing future capital improvement projects. The purpose of this document is to provide a regional water master plan for WUGT's existing and proposed service area in western Maricopa County, focusing on eight (8) developments which are in relatively advanced stages of planning and have requested service from WUGT.

The WUGT is currently in the process of extending their Certificate of Convenience and Necessity (CC&N) to cover various subdivisions or portions thereof that are not included in their existing CC&N.

The area to be regionally planned for the WUGT is located in western Maricopa County and in total comprises approximately one hundred and sixty-four (164) square miles. The proposed service area is bounded by the Central Arizona Project canal on the north, 443rd Avenue on the west, Van Buren Street, Broadway Road and Buckeye Road on the south, and the Town of Buckeye Municipal Planning area on the east. Exhibit 1.1 provides a vicinity map of the area. WUGT's current service area covers approximately 61 square miles, or close to 39,000 acres. For this master plan, approximately 66,000-acres were planned.

Global Water filed an application for an extension of CC&N with the Arizona Corporation Commission (ACC) for water (Docket No. W-02450A-06-0626). The proposed extension area is approximately 22,000 acres and includes the Belmont and 339th Avenue developments, and a portion of Copperleaf, Desert Willow, Silver Water Ranch and Hassayampa Ranch (the balance is already in the existing CC&N), currently in development master planning with Maricopa County. All of these developments have requested service from WUGT or its parent company, Global Water.

This master plan will focus on serving the developments included in this CC&N extension area, as well as those portions already in the existing CC&N area, for an approximate total of 66,000 acres. None of

the developments have existing potable water service as they are all in the planning stages and have not reached final plat.

Water for the region will be provided by groundwater and Central Arizona Project (CAP) water. Groundwater will be chlorinated prior to distribution and other treatment including blending for arsenic, fluoride or nitrate removal will be provided if required to meet drinking water quality standards. CAP water cannot be utilized until capacity is secured, and is not expected to serve earlier phases of the development. Treatment technologies for the CAP water will consist of conventional sedimentation and filtration or membrane filtration. The CAP water will be treated to drinking water quality as prescribed by the Arizona Administrative Code (A.A.C.)

1.1 Scope of Work

Global has contracted DSWA to provide a comprehensive water master plan for the western Maricopa County region. A hydraulic model that incorporates existing master plans provided by developers is required along with cost estimates for the proposed infrastructure. Two phases were modeled. The first phase (Phase 1) consists of Villages 1, 2, 3 and 4 of the Belmont subdivision with all other developments completely built out. The second phase is full build-out of all developments in the modeled area including Belmont. The piping network typically modeled 1-mile grid pipelines only, unless the developer had a water master plan for the development.

This plan shows approximate locations of proposed water distribution centers required to provide the service area with adequate quantity and pressure of potable water. Conceptual water line sizes and locations are also provided with this plan. Since the majority of the area included in the distribution system model is in the early stages of development, it is anticipated that pipe and facility locations will be adjusted to better suit the needs of the developments. It is recognized that final pipeline alignments will most likely not follow the 1-mile grid that is used for a majority of the model, but the alignments and sizes provided by the model should provide development planners some idea of the size of pipelines that will be required to meet the water demands of the home owners in their developments. It is also recognized that some facility locations as shown in the model may not be in ideal locations for planning purposes. These locations provide good hydraulic connectivity and support for the distribution and can

be viewed as preferred “feed points” so that if a facility were to be located in the general locale of one of the modeled facilities, then the flow from the facility could be conveyed to a more ideal “feed point” with a dedicated pipeline.

1.2 Service Area

The service area and the proposed developments modeled are shown in Exhibit 1.1. The area modeled to support this report does not coincide with the entire planning service area for Global Water in the region. A future master planning effort will incorporate the entire area as well as provide an update to this plan. Approximately 66,000 acres were modeled in this master plan.

1.3 Topography

For purposes of this study, the ultimate Global Water service area covers approximately 66,000 acres. The region generally slopes from northwest to southeast. The lowest elevation served in this plan is approximately 1,000-feet above mean sea level (AMSL). The highest elevation served is approximately 1,370-feet AMSL. The lowest elevation is located approximately one mile east of Wintersburg Road at Lower Buckeye Road in the south and the highest elevations are located along the CAP canal in the north. For the Belmont area, contour data was provided by CMX in the report for their water model. CMX obtained the topography from MapMart. For the remainder of the service area, United States Geographical Survey (USGS) contour mapping (10-20-foot intervals) was used as a basis for ground elevations.

1.4 Existing Conditions

Currently, several small water systems owned by WUGT serve the planning area. WUGT’s current service area covers approximately 61 square miles, or close to 39,000 acres. Table 1-1 shows the existing water system names and number of customers.

Table 1-1 Existing WUGT Water Systems and Customers

Water System	Existing Customers
Buckeye Ranch System - PWS #07-618	94
Dixie System - PWS #07-030	27
WPE #6 - PWS #07-733	23
Tufte WPE #7 System - PWS #07-617	6
Garden City/Big Horn System - PWS #07-037	16
Rose View System - PWS #07-082	16
WPE #1 System - PWS # N/A	2
Sunshine System - PWS #07-071	121
Total	305

1.4.1 Existing Water Systems

As indicated in Table 1-1, the existing water delivery system for WUGT serves approximately 300 customers. These customers are spread out over several miles. Exhibit 3-1 shows the approximate locations of the existing customers. Typically, these existing systems are characterized by small diameter (2" to 3") pipelines and small exempt wells. Of the eight systems within the WUGT, three of them provide fire hydrants. In general, these systems will not support new development and this infrastructure has not been included in the hydraulic model. Global expects to upgrade and replace this existing infrastructure as development occurs nearby.

1.4.2 Geohydrology

The proposed service area is located in the western portion of the Phoenix Active Management Area and the Hassayampa Subbasin. The Hassayampa Subbasin comprises approximately 1,200 square miles. The basin is bounded by the Vulture Mountains to the north, by the White Tank Mountains to the east, by the Gila Bend Mountains and Buckeye Hills to the south, and by the Palo Verde Hills, Belmont Mountains, and Big Horn Mountains to the west. The Hassayampa Subbasin is drained by the Hassayampa River, which converges with the Gila River to the east.

Two cones of depression have developed in this subbasin due to extensive groundwater pumping for agricultural use. These depressions have created a decline in water levels of between 70 and 90 feet in the Tonopah Desert and Centennial Wash areas, respectively. The depth to water ranges from

approximately 20 feet below land surface near the Gila River to over 700 feet below land surface toward the north portion of the subbasin.

The Arizona Department of Water Resources (ADWR) Groundwater Site Inventory (GWSI) and Well Registry databases indicate that there are up to 357 wells located within the proposed service area. GWSI indicates that the wells located within the proposed service area are used for drinking water, irrigation, stock, and monitoring purposes.

The specific conductance across the proposed service, as reported by ADWR, ranged from 400 to 4,650 micro-Siemens per centimeter (uS/cm) with the higher values recorded in the southeast where agricultural use is high. This results in calculated total dissolved solids (TDS) concentration from 240 to 2,790 mg/L. The TDS concentration was calculated by multiplying the specific conductance by 0.6 to obtain milligrams per liter (mg/L) of dissolved solids. The fluoride and arsenic concentrations exceed Aquifer Water Quality Standards (AWQS) generally on the south side of proposed service area.

Presently, all water services for the proposed service area are provided by groundwater wells. Exhibit 3.2 provides a well location map showing existing wells throughout the proposed service area.

1.5 Existing Master Plans

CMX created both water and wastewater master plans for the proposed Belmont development¹. These plans have been approved by Maricopa County. These master plans were incorporated into this master plan with minor changes. Several pipe sizes were changed and pressure zone breaks were modified. In general, the recommended revisions to the Belmont Master Plan include:

- Increased pipeline size from 16" to 24" along the main collector roads that traverse north to south.
- Increased pipeline size from 16" to 24" along the main collector roads that traverse east to west.
- Added a Water Campus in Village 18 of the new Zone 4.
- Added a Water Campuses in Villages 12 and 7 of the new Zone 3.
- Removed a Water Campus in Village 25 of the new Zone 2.

- Minimum line size modeled equal to 12”.
- Number of PRV stations reduced, pressure zone breaks redefined.
- 12” looping lines added where necessary.
- Number of Interstate 10 freeway crossings reduced.

The increase in pipeline sizes and facilities allows for a better distribution of water across the new service area and aids in meeting the demands imposed by the criteria of this report.

In addition, the Hassayampa Ranch, 339th Avenue, Silver Water Ranch, Silver Springs Ranch and Copper Leaf developments have water and wastewater master plans that have not been approved by Maricopa County. Only proposed development boundaries and development densities, and in some cases roadway alignments, from these plans were used in this master plan.

2.0 Master Plan

Two (2) models were created for this master plan including Phase 1 and Ultimate Build-out models. In each model, three scenarios were run. Average Day, Maximum Day with fire flow, and Peak Hour scenarios were modeled with Bentley's (Haestad Methods) WaterCAD v8 XM.²

2.1 Analytical Methodology

WaterCAD takes user inputs for pipe diameters, pipe locations, ground elevations, and storage/booster pumping constraints and computes pressure and flows for the piping network. Pipes are connected to each other via junction nodes. WaterCAD's calculation engine is based on the Gradient Algorithm approach.² Pressure and flow results are presented graphically as well as in table formats. The Ultimate Build-out hydraulic model created for this master plan includes 550 pipes. Only steady state analysis scenarios were made.

2.2 Criteria and Assumptions

For this project, only 12" and larger mains were used in the model. Twelve inch pipelines were sometimes used on a half-mile grid, other times 16" pipes were used. The majority of the pipelines were at least 16" in diameter. A Hazen-Williams Roughness Coefficient of 130 was used throughout the modeling effort. Minor losses due to valves and fittings were not considered.

Global Water System Design standards were adhered to when not in conflict with Maricopa County Environmental Services Department (MCESD) requirements for the creation of the models and assigning demands to the junction nodes. Typical water usage in other Global Water service areas averages 250 gallons per day per dwelling unit with 2.6 persons per dwelling unit. The water demand in these service areas results from Global Water's strict water conservation efforts and reclaimed water use requirements. MCESD requires that more conservative values be used for master planning efforts. These values are shown in Table 2-1.

Table 2-1 Water Demand Criteria

Criteria	Value	Units
Per Capita Usage	150	Gal/capita/day
Persons/DU	3.2	Persons
DU Consumption	480	Gal/DU/day
Development Density	3	DU/acre
Maximum Day peak factor	1.98	Multiply ADD
Peak Hour Peak Factor	3.36	Multiply ADD
Fire Flow	1,500	Gal/min

ADD = Average Day Demand

With regard to their water conservation policies, Global has incorporated Codes of Practice for water conservation to minimize landscape irrigation with potable water and maximize reclaimed water use. Specifically, Global Code of Practice, GWR-CP-01-007 dictates that land developers in the WUGT service area must incorporate lakes for reclaimed water storage areas in their plans so that six (6) days of storage is available with no irrigation demand. These lakes will store reclaimed water in the winter when irrigation demand is low and will provide extra water in the summer when demand is higher. This Code of Practice states that landscaping will include 22% turf, 75% xeriscape and 3% lakes.

For all unplanned areas within the hydraulic model extents, demands for residential development at 3 DU/acre or 480 gallon/DU/day were used. Peaking factors were multiplied with the Average Day Demand (ADD) to estimate the Maximum Day (MDD) and Peak Hour demands (PHD).

The entire Global Water planning service area was not modeled. The modeled area was limited to the area that encompassed the planned developments and nearby land totaling approximately 66,000 acres. The area modeled is shown in Exhibit 1.1.

2.3 Phasing

Pursuant to Global Water's direction, a Phase 1 model and an Ultimate Build-out model were created. The Phase 1 model included a portion of Belmont, Villages 1, 2, 3 and 4, along with all other areas within the model boundary. The Ultimate Build-out model included the entire model boundary shown in Exhibit 2.2. The demands for these models are shown in Table 2-2. Based on the modeling results, several water distribution centers are required to support Phase 1 development.

2.4 Demands

Water demands were estimated for each scenario based on the criteria shown above. The following overall demand estimates were used in the models.

Table 2-2 Water Demands

Model	Value	Units
Phase 1- ADD	43,542	Gal/min
Phase 1 - MDD	86,213	Gal/min
Phase 1 - PHD	146,301	Gal/min
Ultimate Build-out- ADD	73,804	Gal/min
Ultimate Build-out- MDD	146,132	Gal/min
Ultimate Build-out- PHD	247,981	Gal/min

More specifically, projected demands were allocated to specific planned developments and unplanned areas according to Table 2-3. These demands were allocated to junction nodes adjacent to the area of development.

Table 2-3 Water Demand Projections at Build-out

Development	Area of Existing CC&N (acres)	Area of Proposed Future Development (acres)	¹ Dwelling Units at Build-out	Projected Water Demand, gpm	Projected Water Demand, mgd
Belmont	-	19,893	78,423	34,399	49.5
Copperleaf	302	914	4,000	1,333	1.92
Silver Water Ranch	433	96	1,877	626	0.901
Silver Springs Ranch	2,229	-	8,219	2,740	3.95
339 th Avenue	-	1,273	2,127	709	1.02
Desert Whisper	474	474	2,900	967	1.39
Hassayampa Ranch	1,989	474	7,376	2,248	3.24
Balterra	1,256	-	3,610	1,203	1.73
Unplanned areas	14,080	17,981	88,106 ²	29,369	42.3
Totals	20,426	41,442	196,638	73,594	106.0

1. Dwelling units and acreages taken from development master plans prepared by others.
2. Dwelling units estimated from 635 acres per section and 3 DU/ac.

The projected water demand for the service area modeled is 62.7 mgd for Phase 1. Global Water intends to meet the initial water demands of Phase 1 through twelve (12) water distribution centers and future treatment facilities for CAP water. The initial water distribution centers will be supplied by groundwater from nearby wells. The exact locations of the wells are not known at this time. The following descriptions of feed point locations are based upon how the Phase 1 model was set up. One water distribution center feed point is located near 403rd Avenue and Camelback Road in the Balterra development. Three (3) water distribution centers are located in Belmont, one in each of the three Belmont Pressure Zones. One water distribution center is located in the 339th Avenue development, one is located in Silver Springs Ranch, one is located in Silver Water Ranch, two (2) are located in unplanned areas of Pressure Zone 2, and three (3) are located in unplanned areas of Pressure Zone 3. The specific locations of proposed feed points from the water distribution centers for Phase 1 are shown in Exhibit 2.1.

The projected water demand for the service area modeled is 106.0 mgd to serve 196,638 dwelling units at Ultimate Build-out. An additional five (5) water distribution centers are needed in Belmont. A total of eight (8) water distribution centers will be located in the Belmont development. This is an increase of one more in the Belmont area than the approved master plan due to increased projected demands. The additional water distribution center will be located in Belmont, within Village 18 to serve Pressure Zone 4, for a total of three (3) water distribution centers in Pressure Zone 4.

Based on the results of the Ultimate Build-out modeling, seventeen (17) water distribution centers are required to serve the proposed development. In the modeled Ultimate Build-out service area, there are three (3) water distribution centers in Pressure Zone 4, six (6) water distribution centers in Pressure Zone 3, five (5) water distribution centers in Pressure Zone 2, and three (3) water distribution centers in Pressure Zone 1. Section 2.6.2 describes the requirements of these facilities in more detail.

2.5 Pressure Zones

Global Water's modeled Ultimate Build-out service area is divided into four distinct pressure zones. Each zone has a change in elevation of 100-feet above mean sea level. The CAP canal is the northern most boundary of Pressure Zone 4. The elevation range of the pressure zones are shown in Table 2-4. Exhibit 1.1 shows the service area and pressure zones.

Table 2-4 Pressure Zones

Pressure Zone	Lower Elevation	Upper Elevation
Zone 0	1000	1,002
Zone 1	1,022	1,092
Zone 2	1,085	1,170
Zone 3	1,170	1,270
Zone 4	1,269	1,371

All of the Pressure zones will be separated from each other by Pressure Reducing Valve (PRV) stations and/or normally closed valves. Pressure Zone 0 is a small area south of Pressure Zone 1 and was separated from Pressure Zone 1 in order to resolve issues with high pressures in the area. Pressure Zone 0 will be completely fed via a PRV station and normally closed valves and hence will not have any water distribution centers. DSWA tried to limit the number of PRVs required for proper operation of the

overall water system. For this model, thirteen (13) PRVs were used to connect the five (5) zones. Additional zone crossings were modeled as normally closed valves that do not allow flow to pass.

Typical PRV stations will include a large PRV and a smaller bypass PRV with pressure gages and isolation valves. These stations will be in underground vaults or in above ground fenced enclosures as determined by Global.

2.6 Modeling Results

Exhibits 2.1 and 2.2 shows the piping network required to meet the projected demands of the system. Typically, peak hour conditions dictated the pipeline sizes for each phase. The WaterCAD network and output are located in Appendix A. The junction node and pipe labels are included and the output from each run of each phase is provided.

The modeled pipe sizes were optimized so that the minimum pressures during the peak hour scenario were 40 psi or greater, with a maximum pressure limited to about 90 psi for the average day scenario and about 87 psi for the maximum day scenario both located at the low end of Pressure Zones 3 and 4. The pressure ranges for each scenario are shown in Table 2-5. It is anticipated that these pressures will be refined when detailed hydraulic models are created for portions of the service area in the future.

As part of the maximum day scenario, a fire flow of 1,500 gpm was independently applied to each node and the results show that each node can support 1,500 gpm fire flow with a minimum pressure residual in the system of 20 psi.

Table 2-5 Pressure Ranges

Phase	Scenario	Min. Pressure (psi)	Max. Pressure (psi)
Phase I	ADD	44	91
	MDD	43	88
	PHD	41	84
Build-out	ADD	41	90
	MDD	40	87
	PHD	40	84

2.6.1 Pipelines

Table 2-6 shows the required length and size for the pipelines modeled. In most cases, the smaller diameter looping pipelines internal to a main square mile loop were not modeled and are not accounted for herein.

Table 2-6 Pipeline Quantities (Ultimate Build-out)

Pipe Diameter (inches)	Length (miles)
12	51
16	177
24	57
36	1

2.6.2 Storage and Booster Pumping

The booster stations were modeled as constant pressure sources to simulate multiple pump facilities with Variable Frequency Drive (VFD) motors. The set pressures used in the models ranged from 54 to 74 psi and are shown below in Table 2-7. Global typically requires that a water distribution center meets the following requirements:

- Two welded steel reservoirs, totaling 5.0 million-gallons
- Split-case centrifugal pumps capable of producing 15,000 gpm with the largest pump out of service
- Hydropneumatic tank
- Disinfection system housed in building
- Standby generator

The set pressures did not change between scenarios.

Table 2-7 Booster Station Set Pressures

Location	Pressure Zone	Outlet HGL (ft)	Set Pressure (psi)	Design Flow rate (gpm) ¹	Design Flow Rate (MGD) ¹	No. of Water Distribution Centers ²
339 th Avenue	1	1,240	75.5	16,004	23.1	1
Silver Springs Ranch	1	1,231	66.7	11,679	16.8	1
Belmont -Village 25	1	1,208	50.2	16,685	24.0	1
Balterra	2	1,288	66.2	13,187	19.0	1
Belmont - Village 2	2	1,281	60.6	16,810	24.2	1
Silver Water Ranch	2	1,288	78.4	11,151	16.1	1
Unplanned Area – 339th Ave and Indian School Rd	2	1,285	67.1	17,061	24.6	1
Unplanned Area – 395th Ave and Bethany Home Rd	2	1,320	64.9	15,183	21.9	1
Belmont - Village 15	3	1,365	51.1	15,047	21.7	1
Belmont - Village 13	3	1,390	64.9	15,856	22.8	1
Belmont - Village 7	3	1,380	69.3	15,371	22.1	1
Unplanned Area – 371st Ave and Glendale Rd	3	1,390	77.9	13,619	19.6	1
Unplanned Area - 435 th Avenue & Bethany Home Rd	3	1,372	44.1	16,320	23.5	1
Unplanned Area - 411th Avenue and Glendale Ave	3	1,370	69.2	7,743	11.2	1
Belmont - Village 18	4	1,487	53.7	15,314	22.1	1
Belmont - Village 18	4	1,498	70.6	14,698	21.2	1
Belmont - Village 19	4	1,470	54.6	15,471	22.3	1

1. Ultimate Peak hour flowrates

2. Based on each pump station delivering 15,000 gpm. In some cases, additional pumps will be required to increase the flowrate.

The required storage volume was calculated from the estimated demands within the model area by calculating 30% of maximum day demand plus fire flow requirements. Fire flow is estimated at 1,500 gpm for a two (2) hour duration with fire flow available in each of the four main pressure zones. Based on this criteria, the required storage volume for the entire service area is 63.7 million gallons. A typical

water distribution center layout is shown in Appendix B. To meet the total storage volume, approximately twenty-six (26) 2.5 million gallon reservoirs are required.

2.6.3 Cost Estimates

Cost estimates for the infrastructure proposed in this master plan are presented below. These estimates are preliminary in nature and based on the quantities derived from the hydraulic model. These estimates include backbone infrastructure only.



GLOBAL WATER
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WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN



Phase 1 – Estimate of Probable Cost

Description	Quantity	Unit Cost	Total
PIPELINES			
12" DIP	98,322 LF	\$ 81	\$ 7,964,082
16" DIP	638,643 LF	\$ 100	\$ 63,864,300
24" DIP	209,849 LF	\$ 120	\$ 25,181,880
36" DIP	4,975 LF	\$ 155	\$ 771,125
Pipeline Subtotal			\$ 97,781,387
WATER DISTRIBUTION CENTERS			
Total Required	12 EA	\$12,615,575	151,386,895
WDC Subtotal			\$ 151,386,895
Total Estimated Construction Cost:			\$249,168,282



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WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN

DSWA

Ultimate Build-out – Estimate of Probable Cost

Description	Quantity	Unit Cost	Total
PIPELINES			
12" DIP	268,035	\$ 81	\$ 21,710,835
16" DIP	932,155	\$ 100	\$ 93,215,500
24" DIP	300,778	\$ 120	\$ 36,093,360
36" DIP	4,975	\$ 155	\$ 771,125
Pipeline Subtotal			\$ 151,790,820
WATER DISTRIBUTION CENTERS			
Total Required	17	EA \$12,615,575	214,464,769
WDC Subtotal			\$ 214,464,769
CAP Water Treatment Plant	47	MGD \$ 2,800,000	\$ 132,020,000
Total Estimated Construction Cost:			\$498,275,589



WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN



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Water Distribution Center Detail – Estimate of Probable Cost

Description	Quantity	Material		Labor		Total Cost 2007
		Unit Cost	Total	Unit Cost	Total	
Water Distribution Center Detail						
A. Concrete	1 LS	\$ 95,000	\$ 95,000	incl		\$95,000
B. Electrical Building	800 sq. ft.	\$ 150	\$ 120,000	incl		\$120,000
C. Equipment						
2.5 MG Steel Reservoir	2 EA	\$ 2,100,000	\$ 4,200,000	incl		\$4,200,000
Horizontal Split Case Pumps (3000 gpm ea.)	6 EA	\$ 19,500	\$ 117,000	20% of Material	\$ 23,400	\$140,400
Hydro Pneumatic Tank	2 EA	\$ 26,000	\$ 52,000	incl		\$52,000
Disinfection System	1 LS	\$ 40,000	\$ 40,000	incl		\$40,000
D. Mechanical/HVAC/Plumbing/Piping	1 LS					\$664,860
E. Site Work - 10% of A+B+C+D	1 LS					\$521,726
F. Electrical - 15% of B+C+D	1 LS					\$782,589
G. Instrumentation and Control - 15% of B+C+D	1 LS					\$782,589
Subtotal						\$7,399,164
H. General Conditions – 10% of sum of A thru G						\$739,916
Subtotal						\$8,139,080
I. Contractor Overhead and Profit – 15% of sum of A thru H						\$1,220,862
J. Contingency – 40% of sum of A thru H						\$3,255,632
Grand Total						\$12,615,575

3.0 Water Resources

3.1 Groundwater Quality

Global Water maintains the following strategies with respect to groundwater quality:

1. Identify and rehabilitate high quality wells in the proposed service area.
2. Develop blending mechanisms and control strategies to blend high quality water with poorer quality groundwater to ensure compliance with the Safe Drinking Water Act and AAC R18-4.
3. Modify existing wells to isolate areas of high concentrations or access higher quality water.
4. Provide slipstream treatment processes which in conjunction with an effective blending plan will meet the requirements.
5. Provide full scale treatment of groundwater.

A three phased approach to the evaluation of wells is employed by Global:

1. Phase 1 – Review available ADWR and ADEQ data, and physical assessment of wells;
2. Phase 2 – Analytical sampling of flow rates and quality (depth specific sampling, spinner logs);
3. Phase 3 – Rehabilitation. Installation of sanitary seal, re-screening, renewal of electrical control system, installation of SCADA control system, and obtain New Source Approval.

If after careful evaluation it is determined the existing well is not adequate, a new replacement well will be drilled.

During Phase 2 of the evaluation program, a full suite of analytical data is taken from the groundwater including:

- Metals
- Inorganics
- Synthetic Organic Compounds
- Volatile Organic Compounds
- Nutrients
- Bacteriological Analyses
- Radiochemical constituents

The results of these analyses will determine any groundwater treatment requirements. The selection of wells for potable water production will take into account the water quality data, so investment into the

conversion is made prudently. Global is prepared to install, operate and maintain any treatment processes that may be required. Global is considering three (3) alternative types of treatment methods for removal of Arsenic and Fluoride from the groundwater. These facilities will be located at the water distribution centers.

3.2 Wells

Global Water prefers to utilize existing high production capacity wells suitable for rehabilitation and outfitting as domestic supply wells. If suitable wells are not available, new groundwater production wells will be drilled near the water distribution centers. Raw water will be conveyed to the distribution centers for disinfection and treatment via raw water pipe networks. Specific well locations will be selected by qualified hydrogeologists. The new wells will be sited and screened to maximize groundwater quality.

4.0 Recommendations

Global Water's Standards for the Planning, Design and Construction of Water and Wastewater Systems along with this master plan provide the necessary guidance and requirements for development in the WUGT service area. Global Water System Design standards were adhered to when not in conflict with MCESD requirements for the creation of the models and assigning demands to the junction nodes.

Global Water has experienced an average use of 250 gallons per day per dwelling unit with 2.6 persons per dwelling unit in their other service areas. The water demand in these service areas results from Global Water's strict water conservation efforts and reclaimed water use requirements. MCESD requires that more conservative values be used for master planning efforts.

The proposed pipelines, reservoirs and booster stations should be constructed as development occurs in the area. In general, each development should provide wells and water storage to meet the water demands of their development. Although this plan calls for specific pipe sizes along certain roadway/section line alignments, detailed hydraulic models of each development's planned area are needed to accurately estimate internal pipeline sizes and locations.

In addition, the existing water infrastructure will be interconnected as development occurs nearby.

5.0 References

- 1- *Master Water Plan for Belmont*, by CMX LLC, Phoenix, Arizona, August 2006
- 2- Bentley Systems, Inc. Haestad Methods Solution Center, Watertown, CT, WaterCAD V8 XM Edition.



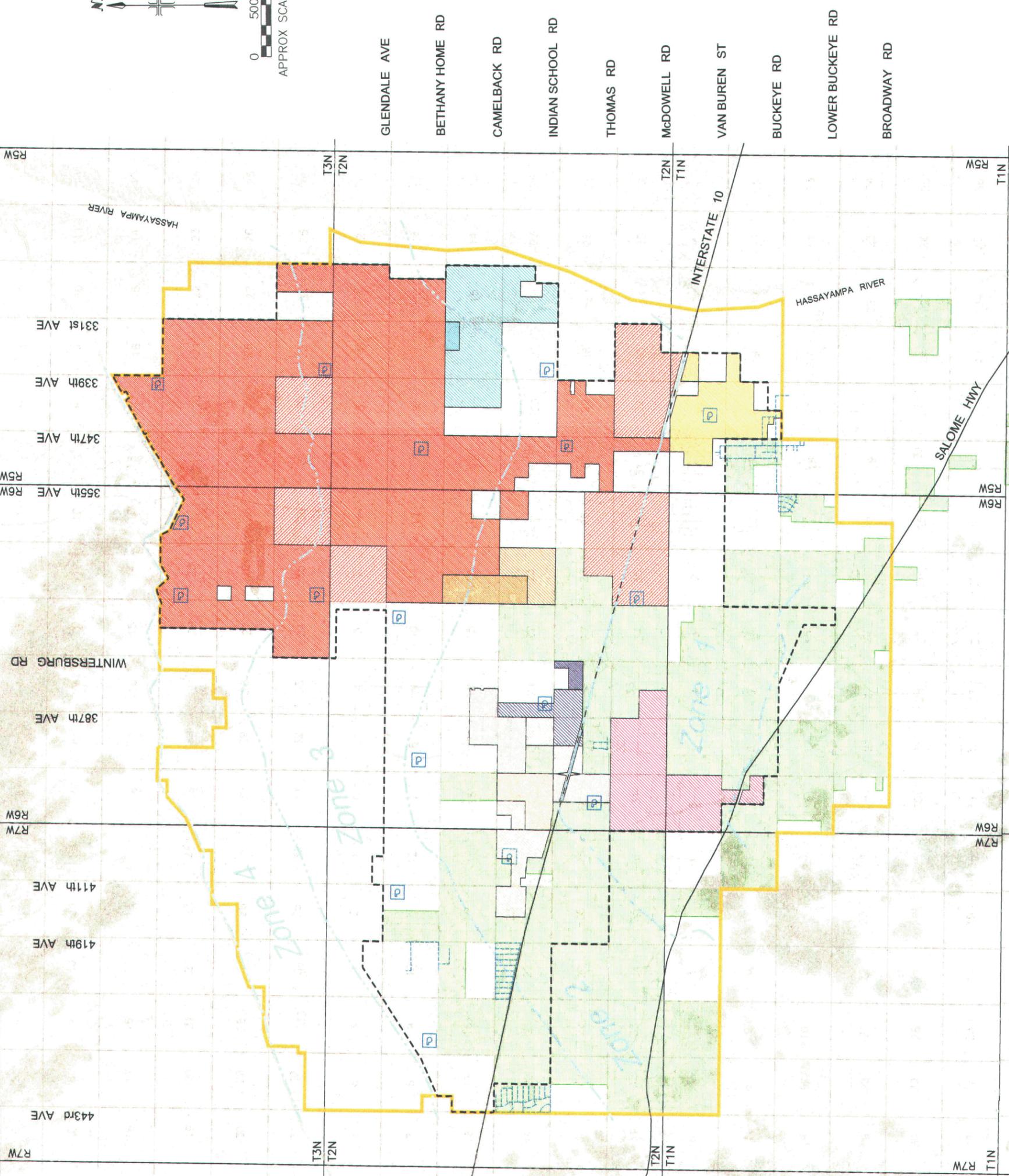
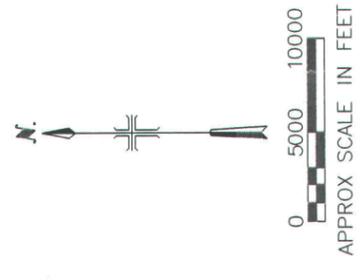
**WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN**

DSWA

EXHIBIT 1-1
Proposed Service Area Location Map

LEGEND	
	SERVICE AREA BOUNDARY
	EXISTING WUGT WATER LINE
	PRESSURE ZONE BOUNDARY
	HYDRAULIC MODEL EXTENTS
	WATER DISTRIBUTION CENTER
	BELMONT (Proposed WUGT CC&N*)
	ASLD INCLUDED IN BELMONT MODEL
	COPPER LEAF (Existing WUGT CC&N)
	COPPER LEAF (Proposed WUGT CC&N*)
	BALTERRA (Existing WUGT CC&N)
	BALTERRA (Proposed WUGT CC&N**)
	SILVER WATER RANCH (Existing WUGT CC&N)
	SILVER WATER RANCH (Proposed WUGT CC&N*)
	339th AVENUE PROJECT (Proposed WUGT CC&N*)
	DESERT WHISPER (Existing WUGT CC&N)
	DESERT WHISPER (Proposed WUGT CC&N*)
	HASSAYAMPA RANCH (Existing WUGT CC&N)
	HASSAYAMPA RANCH (Proposed WUGT CC&N*)
	SILVER SPRINGS RANCH (Existing WUGT CC&N*)
	WUGT (Existing CC&N)

NOTES:
 * W-02450A-06-0626
 ** W-02450A-06-0253



PROPOSED SERVICE AREAS
 LOCATION MAP
 SHOWING PRESSURE ZONES

GLOBAL WATER
 WATER UTILITY
 OF GREATER TONOPAH



DSWA
 DAMON S. WILLIAMS ASSOCIATES, LLC

Designed By: GB, VJL
 Drawn By: CDH
 Checked By: CHC

NO	DATE	BY	DESCRIPTION

File Name: WUGTWD01.dwg

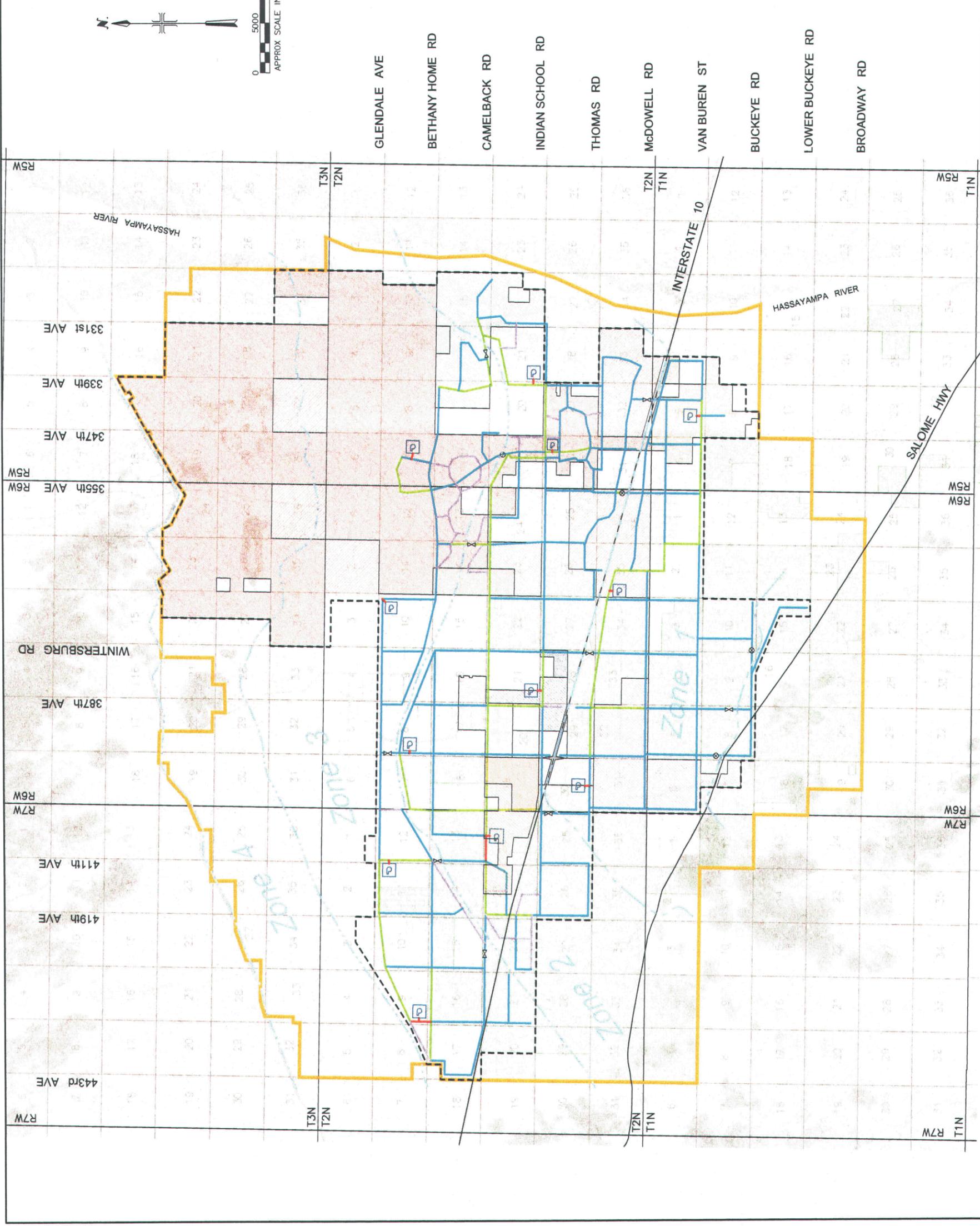
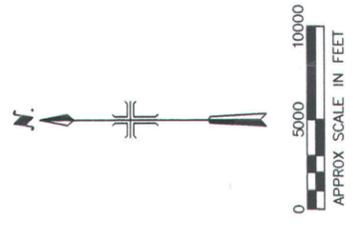
DSWA Project No 060260
 Date: JUNE 2007

EXHIBIT 1.1

EXHIBIT 2-1
Proposed Phase 1 Water Distribution System

LEGEND	
	SERVICE AREA BOUNDARY
	PRESSURE ZONE BOUNDARY
	HYDRAULIC MODEL EXTENTS
	12" WATER MAIN
	16" WATER MAIN
	24" WATER MAIN
	36" WATER MAIN
	WATER DISTRIBUTION CENTER
	PRV STATION
	NORMALLY CLOSED VALVE
	BELMONT (Proposed WUGT CC&N*)
	ASLD INCLUDED IN BELMONT MODEL
	COPPER LEAF (Existing WUGT CC&N)
	COPPER LEAF (Proposed WUGT CC&N*)
	BALTERRA (Existing WUGT CC&N)
	BALTERRA (Proposed WUGT CC&N**)
	SILVER WATER RANCH (Existing WUGT CC&N)
	SILVER WATER RANCH (Proposed WUGT CC&N*)
	339th AVENUE PROJECT (Proposed WUGT CC&N*)
	DESERT WHISPER (Existing WUGT CC&N)
	DESERT WHISPER (Proposed WUGT CC&N*)
	HASSAYAMPA RANCH (Existing WUGT CC&N)
	HASSAYAMPA RANCH (Proposed WUGT CC&N*)
	SILVER SPRINGS RANCH (Existing WUGT CC&N*)
	WUGT (Existing CC&N)

NOTES:
 * W-02450A-06-0626
 ** W-02450A-06-0253



DSWA Project No 060260
 Date JUNE 2007

PROPOSED PHASE 1 WATER DISTRIBUTION SYSTEM

GLOBAL WATER WATER UTILITY OF GREATER TONOPAH



DSWA
 DAMON S. WILLIAMS ASSOCIATES, LLC

Designed By GB, VJL
 Drawn By CDH
 Checked By CHC

NO	DATE	BY	DESCRIPTION



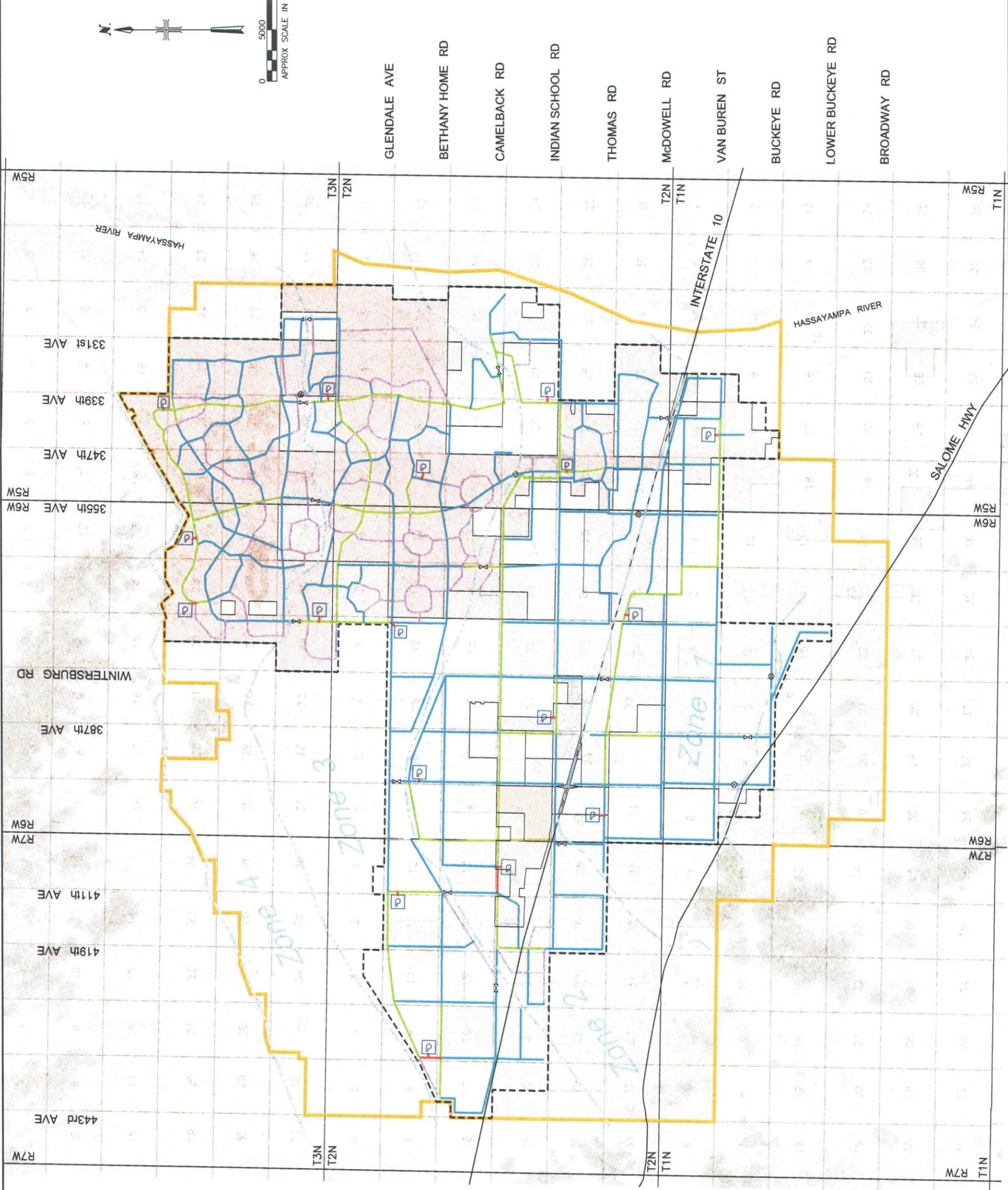
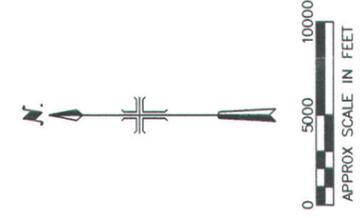
WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN

DSWA

EXHIBIT 2-2
Proposed Ultimate Build-out Water Distribution System

LEGEND	
	SERVICE AREA BOUNDARY
	PRESSURE ZONE BOUNDARY
	HYDRAULIC MODEL EXTENTS
	12" WATER MAIN
	16" WATER MAIN
	24" WATER MAIN
	36" WATER MAIN
	WATER DISTRIBUTION CENTER
	PRV STATION
	NORMALLY CLOSED VALVE
	BELMONT (Proposed WUGT CC&N*)
	ASLD INCLUDED IN BELMONT MODEL
	COPPER LEAF (Existing WUGT CC&N)
	COPPER LEAF (Proposed WUGT CC&N*)
	BALTERRA (Existing WUGT CC&N)
	BALTERRA (Proposed WUGT CC&N**)
	SILVER WATER RANCH (Existing WUGT CC&N)
	SILVER WATER RANCH (Proposed WUGT CC&N*)
	339th AVENUE PROJECT (Proposed WUGT CC&N*)
	DESERT WHISPER (Existing WUGT CC&N)
	DESERT WHISPER (Proposed WUGT CC&N*)
	HASSAYAMPA RANCH (Existing WUGT CC&N)
	HASSAYAMPA RANCH (Proposed WUGT CC&N*)
	SILVER SPRINGS RANCH (Existing WUGT CC&N*)
	WUGT (Existing CC&N)

NOTES:
 * W-02450A-06-0626
 ** W-02450A-06-0253



<p>GLOBAL WATER RELIABLE · BENEVOLENT · REFINABLE</p>		<p>GLOBAL WATER WATER UTILITY OF GREATER TONOPAH</p>		<p>PROPOSED ULTIMATE BUILDOUT WATER DISTRIBUTION SYSTEM</p>		<p>DSWA Project No 060260 Date JUNE 2007</p>		<p>EXHIBIT 2.2</p>	
<p>DESIGNED BY GB, VIL</p>		<p>DRAWN BY CDH</p>		<p>CHECKED BY CHC</p>		<p>NO</p>		<p>DATE</p>	
<p>REVISIONS</p>		<p>DESCRIPTION</p>		<p>BY</p>		<p>DATE</p>		<p>FILE NAME: WUGTWG1.dwg</p>	

DSWA
 DAMON S. WILLIAMS ASSOCIATES, LLC

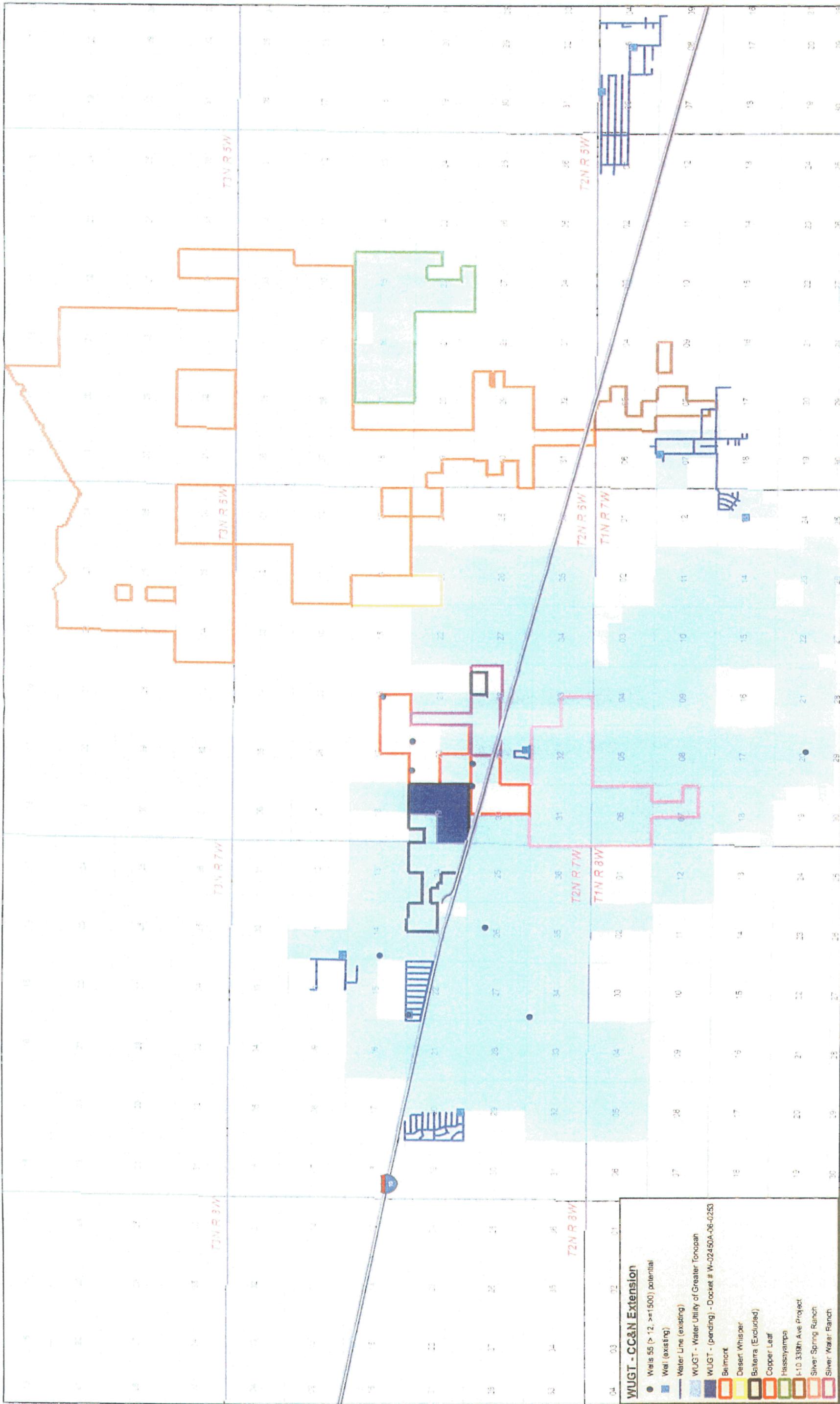


EXHIBIT 3-1
WUGT Existing Water Systems Location Map



WUGT Developments in CC&N Extension

T:\GIS\A-C&N_projects\Tonopah_Water.mxd





**WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN**

DSWA

EXHIBIT 3-2
Well Location Map

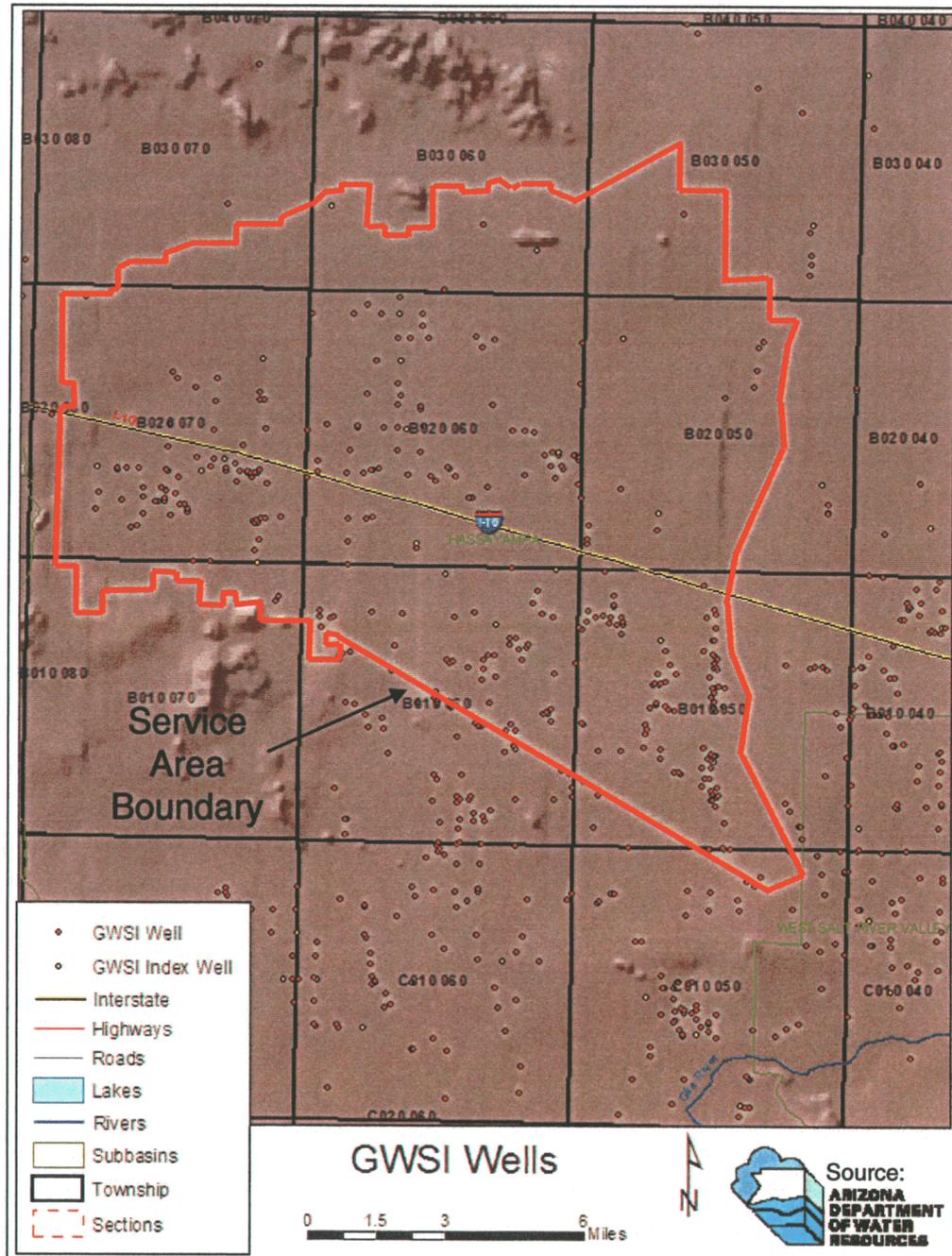


Exhibit 3.2 Well Location Map

APPENDIX A
Water CAD Results



WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN

DSWA

Phase 1

Reservoir Report

Id	Label	Elevation (ft)	Zone	Outflow (gpm)	Hydraulic Grade (ft)
1276	R-29	1,208.00	116: Zone - 1	13,721.06	1,208.00
1274	R-28	1,231.00	116: Zone - 1	11,466.22	1,231.00
1248	R-21	1,240.00	116: Zone - 1	14,881.10	1,240.00
1299	R-31	1,285.00	117: Zone - 2	12,671.29	1,285.00
1267	R-25	1,320.00	117: Zone - 2	15,066.80	1,320.00
1265	Silver	1,288.00	117: Zone - 2	10,513.25	1,288.00
1258	Belmont-ISR	1,281.00	117: Zone - 2	13,642.61	1,281.00
689	Balterra-Res	1,288.00	117: Zone - 2	12,951	1,288.00
1302	R-30	1,390.00	118: Zone - 3	7,202.91	1,390.00
1270	R-26	1,370.00	118: Zone - 3	7,550.30	1,370.00
1260	R-23	1,380.00	118: Zone - 3	10,108.80	1,380.00
1093	R-10	1,372.00	118: Zone - 3	16,508.47	1,372.00

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1103	J-342	1,270.00	18: Zone -	<Collection: 1 item>	318	1,370.70	43.6
769	J-255	1,270.00	18: Zone -	<Collection: 1 item>	636	1,371.00	43.7
1100	J-341	1,270.00	18: Zone -	<Collection: 0 items>	0	1,372.00	44.1
875	J-285	1,170.00	17: Zone -	<Collection: 0 items>	0	1,281.10	48
869	J-283	1,170.00	17: Zone -	<Collection: 0 items>	0	1,282.20	48.6
285	J-171	1,170.00	17: Zone -	<Collection: 1 item>	159	1,282.30	48.6
811	J-271	1,002.00	15: Zone -	<Collection: 1 item>	318	1,114.30	48.6
978	J-317	1,170.00	17: Zone -	<Collection: 1 item>	450	1,282.40	48.6
1295	J-378	1,168.00	17: Zone -	<Collection: 0 items>	0	1,282.10	49.4
732	J-241	1,000.00	15: Zone -	<Collection: 1 item>	479	1,114.30	49.4
1233	J-368	1,000.00	15: Zone -	<Collection: 0 items>	0	1,114.50	49.5
981	J-318	1,168.00	17: Zone -	<Collection: 1 item>	636	1,282.80	49.7
746	J-246	1,000.00	15: Zone -	<Collection: 1 item>	318	1,115.10	49.8
767	J-254	1,256.00	18: Zone -	<Collection: 1 item>	636	1,371.60	50
777	J-259	1,170.00	17: Zone -	<Collection: 1 item>	331	1,286.00	50.2
965	J-313	1,092.00	16: Zone -	<Collection: 1 item>	318	1,208.00	50.2
1127	J-346	1,166.00	17: Zone -	<Collection: 0 items>	0	1,282.60	50.4
241	J-V4-I-Z1	1,165.00	17: Zone -	<Collection: 1 item>	323	1,281.80	50.5
282	J-168	1,165.00	17: Zone -	<Collection: 1 item>	318	1,282.30	50.8
237	J-120	1,164.00	17: Zone -	<Collection: 0 items>	0	1,282.30	51.2
245	J-129	1,163.00	17: Zone -	<Collection: 0 items>	0	1,281.50	51.2
239	J-123	1,164.00	17: Zone -	<Collection: 1 item>	318	1,283.20	51.6
1198	J-361	1,090.00	16: Zone -	<Collection: 0 items>	0	1,209.70	51.8
246	J-V2-I	1,161.00	17: Zone -	<Collection: 1 item>	319	1,281.20	52
288	J-174	1,160.00	17: Zone -	<Collection: 1 item>	159	1,281.10	52.4
214	J-V2-II	1,160.00	17: Zone -	<Collection: 1 item>	319	1,281.10	52.4
289	J-175	1,160.00	17: Zone -	<Collection: 0 items>	0	1,281.10	52.4
1180	J-358	1,090.00	16: Zone -	<Collection: 0 items>	0	1,211.60	52.6
900	J-293	1,170.00	17: Zone -	<Collection: 1 item>	159	1,292.10	52.8
1208	J-363	1,086.00	16: Zone -	<Collection: 0 items>	0	1,209.10	53.2
830	J-279	1,162.00	17: Zone -	<Collection: 1 item>	100	1,285.10	53.3
240	J-124	1,160.00	17: Zone -	<Collection: 1 item>	242	1,283.20	53.3
751	J-247	1,085.00	16: Zone -	<Collection: 1 item>	159	1,208.40	53.4
279	J-165	1,087.00	16: Zone -	<Collection: 1 item>	318	1,211.10	53.7
754	J-248	1,085.00	16: Zone -	<Collection: 1 item>	322	1,209.10	53.7
1067	J-334	1,160.00	17: Zone -	<Collection: 1 item>	172	1,285.70	54.4
958	J-311	1,158.00	17: Zone -	<Collection: 1 item>	242	1,284.30	54.6
908	J-295	1,170.00	17: Zone -	<Collection: 1 item>	159	1,296.90	54.9
257	J-V25-II	1,086.00	16: Zone -	<Collection: 1 item>	0	1,214.60	55.6
771	J-256	1,240.00	18: Zone -	<Collection: 1 item>	159	1,369.80	56.1
826	J-278	1,164.00	17: Zone -	<Collection: 1 item>	159	1,294.30	56.4
1291	J-377	1,150.00	17: Zone -	<Collection: 0 items>	0	1,281.40	56.9
254	J-138	1,090.00	16: Zone -	<Collection: 1 item>	318	1,221.50	56.9
658	J-216	1,079.00	16: Zone -	<Collection: 1 item>	322	1,211.60	57.4
951	J-310	1,148.00	17: Zone -	<Collection: 0 items>	0	1,281.00	57.5
1163	J-355	1,152.00	17: Zone -	<Collection: 0 items>	0	1,285.30	57.7
929	J-301	1,078.00	16: Zone -	<Collection: 1 item>	318	1,211.50	57.7
1218	J-365	1,088.00	16: Zone -	<Collection: 0 items>	0	1,221.50	57.8
761	J-251	1,236.00	18: Zone -	<Collection: 1 item>	159	1,370.20	58.1
906	J-294	1,170.00	17: Zone -	<Collection: 1 item>	159	1,304.30	58.1
898	J-292	1,160.00	17: Zone -	<Collection: 1 item>	318	1,294.60	58.2
710	DZ-South	1,145.00	17: Zone -	<Collection: 0 items>	0	1,281.20	58.9
220	J-103	1,091.00	16: Zone -	<Collection: 1 item>	318	1,227.90	59.2
962	J-312	1,072.00	16: Zone -	<Collection: 1 item>	318	1,208.90	59.2
312	J-199	1,145.00	17: Zone -	<Collection: 1 item>	159	1,282.10	59.3
738	J-244	1,071.00	16: Zone -	<Collection: 1 item>	318	1,208.20	59.4

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1156	J-353	1,149.00	17: Zone -	<Collection: 0 items>	0	1,286.80	59.6
809	J-270	1,160.00	17: Zone -	<Collection: 1 item>	318	1,298.40	59.9
258	J-143	1,083.00	16: Zone -	<Collection: 1 item>	318	1,221.60	60
1286	J-376	1,143.00	17: Zone -	<Collection: 0 items>	0	1,281.60	60
215	J-98	1,141.00	17: Zone -	<Collection: 0 items>	0	1,281.00	60.6
264	J-149	1,092.00	16: Zone -	<Collection: 1 item>	101	1,232.60	60.8
311	J-198	1,140.00	17: Zone -	<Collection: 0 items>	0	1,281.20	61.1
932	J-302	1,075.00	16: Zone -	<Collection: 1 item>	318	1,216.40	61.2
1153	J-352	1,145.00	17: Zone -	<Collection: 0 items>	0	1,286.70	61.3
1213	J-364	1,090.00	16: Zone -	<Collection: 0 items>	0	1,231.80	61.3
765	J-253	1,228.00	17: Zone -	<Collection: 1 item>	636	1,370.60	61.7
683	J-228	1,144.00	18: Zone -	<Collection: 1 item>	318	1,287.10	61.9
794	J-265	1,142.00	17: Zone -	<Collection: 1 item>	318	1,285.30	62
818	J-275	1,090.00	16: Zone -	<Collection: 1 item>	101	1,234.40	62.5
949	J-309	1,136.00	17: Zone -	<Collection: 1 item>	318	1,281.00	62.7
307	J-194	1,135.00	17: Zone -	<Collection: 0 items>	0	1,281.20	63.3
896	J-291	1,152.00	17: Zone -	<Collection: 1 item>	318	1,299.00	63.6
1160	J-354	1,138.00	17: Zone -	<Collection: 1 item>	218	1,285.10	63.6
1250	J-370	1,085.00	16: Zone -	<Collection: 0 items>	0	1,232.80	63.9
216	J-99	1,133.00	17: Zone -	<Collection: 0 items>	0	1,281.00	64
934	J-303	1,074.00	16: Zone -	<Collection: 1 item>	318	1,222.00	64
249	J-V1-II	1,133.00	17: Zone -	<Collection: 1 item>	606	1,281.10	64.1
287	J-173	1,133.00	17: Zone -	<Collection: 0 items>	0	1,281.10	64.1
664	J-219	1,059.00	16: Zone -	<Collection: 1 item>	322	1,208.60	64.7
1053	J-330	1,170.00	17: Zone -	<Collection: 0 items>	0	1,319.80	64.8
697	J-232	1,132.00	17: Zone -	<Collection: 1 item>	450	1,282.30	65
1253	J-371	1,078.00	16: Zone -	<Collection: 0 items>	0	1,228.60	65.2
937	J-304	1,060.00	16: Zone -	<Collection: 1 item>	636	1,210.70	65.2
315	J-202	1,130.00	17: Zone -	<Collection: 0 items>	0	1,280.90	65.3
662	J-218	1,058.00	16: Zone -	<Collection: 1 item>	322	1,209.30	65.4
725	J-238	1,070.00	16: Zone -	<Collection: 1 item>	636	1,221.50	65.5
677	J-225	1,135.00	17: Zone -	<Collection: 1 item>	331	1,287.70	66.1
773	J-257	1,216.00	18: Zone -	<Collection: 1 item>	318	1,368.80	66.1
675	Balterra	1,135.00	17: Zone -	<Collection: 1 item>	172	1,288.00	66.2
1281	J-374	1,128.00	17: Zone -	<Collection: 0 items>	0	1,281.60	66.5
308	J-195	1,130.00	17: Zone -	<Collection: 1 item>	477	1,283.70	66.5
1189	J-359	1,055.00	16: Zone -	<Collection: 0 items>	0	1,208.90	66.6
660	J-217	1,077.00	16: Zone -	<Collection: 1 item>	222	1,231.00	66.6
310	J-197	1,126.00	17: Zone -	<Collection: 0 items>	0	1,281.70	67.4
922	J-299	1,050.00	16: Zone -	<Collection: 1 item>	318	1,206.70	67.8
797	J-266	1,128.00	17: Zone -	<Collection: 1 item>	636	1,285.00	67.9
650	J-212	1,131.00	17: Zone -	<Collection: 1 item>	540	1,288.20	68
217	J-100	1,123.00	17: Zone -	<Collection: 0 items>	0	1,280.90	68.3
1065	J-333	1,129.00	17: Zone -	<Collection: 1 item>	172	1,287.10	68.4
727	J-239	1,052.00	16: Zone -	<Collection: 1 item>	481	1,210.50	68.6
940	J-305	1,059.00	16: Zone -	<Collection: 1 item>	636	1,217.80	68.7
670	J-222	1,130.00	17: Zone -	<Collection: 1 item>	172	1,289.30	68.9
210	J-V7-II	1,220.00	18: Zone -	<Collection: 1 item>	339.5	1,379.40	69
294	J-V7-III	1,220.00	18: Zone -	<Collection: 1 item>	339.5	1,380.00	69.2
759	J-250	1,210.00	17: Zone -	<Collection: 1 item>	318	1,370.00	69.2
652	J-213	1,128.00	17: Zone -	<Collection: 1 item>	222	1,288.60	69.5
313	J-200	1,120.00	17: Zone -	<Collection: 0 items>	0	1,280.90	69.6
1194	J-360	1,062.00	16: Zone -	<Collection: 0 items>	0	1,223.50	69.9
947	J-308	1,120.00	17: Zone -	<Collection: 1 item>	242	1,282.30	70.2
654	J-214	1,126.00	17: Zone -	<Collection: 1 item>	394	1,289.10	70.5
820	J-276	1,072.00	16: Zone -	<Collection: 1 item>	101	1,236.40	71.1

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1167	J-356	1,119.00	17: Zone -	<Collection: 0 items>	0	1,285.00	71.8
250	J-V1-I	1,114.00	17: Zone -	<Collection: 1 item>	606	1,280.60	72.1
816	J-274	1,070.00	16: Zone -	<Collection: 1 item>	101	1,238.80	73
309	J-196	1,112.00	16: Zone -	<Collection: 1 item>	318	1,280.90	73.1
763	J-252	1,200.00	18: Zone -	<Collection: 1 item>	636	1,369.80	73.5
787	J-262	1,196.00	18: Zone -	<Collection: 1 item>	318	1,365.90	73.5
252	J-136	1,110.00	17: Zone -	<Collection: 1 item>	318	1,280.20	73.7
218	J-101	1,110.00	17: Zone -	<Collection: 0 items>	0	1,280.80	73.9
681	J-227	1,116.00	17: Zone -	<Collection: 1 item>	410	1,287.10	74
260	J-V24-I	1,109.00	17: Zone -	<Collection: 1 item>	159	1,280.70	74.3
945	J-307	1,112.00	17: Zone -	<Collection: 1 item>	242	1,284.30	74.5
742	J-245	1,034.00	16: Zone -	<Collection: 1 item>	318	1,206.60	74.7
729	J-240	1,035.00	16: Zone -	<Collection: 1 item>	481	1,208.20	74.9
925	J-300	1,058.00	16: Zone -	<Collection: 1 item>	260	1,231.30	75
799	J-267	1,110.00	17: Zone -	<Collection: 1 item>	477	1,283.80	75.2
691	J-229	1,066.00	16: Zone -	<Collection: 1 item>	101	1,239.90	75.2
278	J-164	1,110.00	17: Zone -	<Collection: 0 items>	0	1,284.30	75.4
804	J-269	1,110.00	17: Zone -	<Collection: 1 item>	795	1,284.80	75.6
251	J-135	1,105.00	17: Zone -	<Collection: 0 items>	0	1,280.50	75.9
259	J-144	1,105.00	17: Zone -	<Collection: 0 items>	0	1,280.50	75.9
887	J-287	1,193.00	18: Zone -	<Collection: 1 item>	318	1,370.30	76.7
666	J-220	1,030.00	16: Zone -	<Collection: 1 item>	481	1,207.70	76.9
208	J-91	1,201.00	18: Zone -	<Collection: 0 items>	0	1,379.10	77.1
314	J-201	1,200.00	18: Zone -	<Collection: 0 items>	0	1,378.70	77.3
207	J-90	1,200.00	18: Zone -	<Collection: 0 items>	0	1,378.90	77.4
775	J-258	1,190.00	18: Zone -	<Collection: 1 item>	477	1,369.20	77.5
265	J-V24-II	1,100.00	17: Zone -	<Collection: 1 item>	318	1,279.30	77.6
305	J-192	1,210.00	18: Zone -	<Collection: 1 item>	159	1,389.70	77.8
253	J-137	1,100.00	17: Zone -	<Collection: 1 item>	318	1,279.80	77.8
679	J-226	1,107.00	17: Zone -	<Collection: 1 item>	431	1,288.00	78.3
893	J-290	1,199.00	18: Zone -	<Collection: 1 item>	318	1,380.10	78.4
219	J-V23-I	1,098.00	17: Zone -	<Collection: 1 item>	318	1,279.60	78.6
891	J-289	1,195.00	18: Zone -	<Collection: 1 item>	318	1,376.90	78.7
813	J-272	1,023.00	16: Zone -	<Collection: 1 item>	318	1,205.20	78.8
734	J-242	1,023.00	16: Zone -	<Collection: 1 item>	318.00	1,205.40	78.9
1130	J-347	1,100.00	17: Zone -	<Collection: 0 items>	0	1,282.50	79
206	J-89	1,196.00	18: Zone -	<Collection: 0 items>	0	1,378.80	79.1
656	J-215	1,105.00	17: Zone -	<Collection: 1 item>	394	1,288.10	79.2
701	J-234	1,098.00	17: Zone -	<Collection: 1 item>	350	1,281.90	79.6
236	J-119	1,195.00	18: Zone -	<Collection: 0 items>	0	1,379.00	79.6
968	J-314	1,100.00	17: Zone -	<Collection: 0 items>	0	1,284.30	79.7
974	J-316	1,100.00	17: Zone -	<Collection: 0 items>	0	1,284.30	79.7
736	J-243	1,022.00	16: Zone -	<Collection: 1 item>	636	1,206.60	79.9
199	J-82	1,192.00	18: Zone -	<Collection: 0 items>	0	1,378.50	80.7
832	J-280	1,093.00	17: Zone -	<Collection: 1 item>	318	1,279.50	80.7
783	J-260	1,178.00	18: Zone -	<Collection: 1 item>	636	1,365.20	81
943	J-306	1,100.00	17: Zone -	<Collection: 1 item>	209	1,287.70	81.2
205	J-88	1,191.00	18: Zone -	<Collection: 0 items>	0	1,378.80	81.2
668	J-221	1,100.00	17: Zone -	<Collection: 1 item>	649	1,288.10	81.4
248	J-V3-I-Z2	1,190.00	18: Zone -	<Collection: 1 item>	606	1,378.40	81.5
318	J-205	1,196.00	18: Zone -	<Collection: 1 item>	159	1,384.90	81.7
228	J-111	1,190.00	18: Zone -	<Collection: 0 items>	0	1,379.00	81.8
757	J-249	1,180.00	18: Zone -	<Collection: 1 item>	318	1,369.90	82.1
699	J-233	1,092.00	17: Zone -	<Collection: 1 item>	409	1,282.50	82.4
889	J-288	1,182.00	18: Zone -	<Collection: 1 item>	318	1,372.60	82.5
244	J-V4-II-Z2	1,186.00	18: Zone -	<Collection: 1 item>	646	1,378.20	83.2

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
243	J-127	1,184.00	18: Zone -	<Collection: 0 items>	0	1,378.20	84
1201	J-362	1,090.00	17: Zone -	<Collection: 0 items>	0	1,284.30	84
232	J-115	1,185.00	18: Zone -	<Collection: 0 items>	0	1,379.40	84.1
211	J-94	1,184.00	18: Zone -	<Collection: 0 items>	0	1,378.60	84.2
823	J-277	1,045.00	16: Zone -	<Collection: 1 item>	101	1,239.90	84.3
785	J-261	1,170.00	18: Zone -	<Collection: 1 item>	477	1,365.00	84.4
801	J-268	1,088.00	17: Zone -	<Collection: 1 item>	636	1,283.80	84.7
306	J-193	1,184.00	18: Zone -	<Collection: 1 item>	159	1,380.90	85.2
970	J-315	1,090.00	17: Zone -	<Collection: 0 items>	0	1,287.10	85.3
275	J-161	1,181.00	18: Zone -	<Collection: 0 items>	0	1,378.50	85.5
1177	J-357	1,090.00	17: Zone -	<Collection: 0 items>	0	1,288.10	85.7
1139	J-348	1,180.00	18: Zone -	<Collection: 1 item>	200	1,378.50	85.9
238	J-V4-I-Z2	1,180.00	18: Zone -	<Collection: 1 item>	646	1,378.50	85.9
242	J-126	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.20	86.2
1071	J-335	1,170.00	18: Zone -	<Collection: 0 items>	0	1,369.20	86.2
212	J-95	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.50	86.3
1074	J-336	1,170.00	18: Zone -	<Collection: 1 item>	318	1,369.50	86.3
283	J-169	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.80	86.5
912	J-297	1,170.00	18: Zone -	<Collection: 1 item>	159	1,369.90	86.5
284	J-170	1,179.00	18: Zone -	<Collection: 0 items>	0	1,378.90	86.5
693	J-230	1,177.00	18: Zone -	<Collection: 1 item>	250	1,378.40	87.1
1142	J-349	1,175.00	18: Zone -	<Collection: 0 items>	0	1,378.40	88
1144	J-350	1,172.00	18: Zone -	<Collection: 1 item>	300	1,378.40	89.3
910	J-296	1,170.00	18: Zone -	<Collection: 1 item>	318	1,377.20	89.6
213	J-V3-I-Z1	1,171.00	18: Zone -	<Collection: 1 item>	67	1,378.50	89.8
713	DZ-North	1,170.00	18: Zone -	<Collection: 0 items>	0	1,378.50	90.2
872	J-284	1,170.00	18: Zone -	<Collection: 0 items>	0	1,378.50	90.2
1262	J-372	1,170.00	18: Zone -	<Collection: 0 items>	0	1,378.50	90.2
918	J-298	1,170.00	18: Zone -	<Collection: 1 item>	318	1,379.40	90.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,368.90	42.8
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.80	43.2
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,371.90	44.1
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	891	1,277.90	46.7
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	629.64	1,111.00	47.1
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	47.8
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,280.40	47.8
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	47.8
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	655.38	1,280.50	47.8
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	948.42	1,110.90	48
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	1,259.28	1,279.50	48.3
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0	1,111.60	48.3
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	48.6
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,278.70	48.8
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	629.64	1,113.80	49.2
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,370.70	49.6
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	198	1,277.20	49.9
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	639.54	1,280.40	49.9
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	629.64	1,280.40	49.9
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,205.90	50.1
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	629.64	1,208.00	50.2
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0	1,280.50	50.4
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	629.64	1,280.80	50.5
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	50.8
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0	1,204.00	51.1
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,208.10	51.1
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	637.56	1,204.00	51.5
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	631.62	1,280.40	51.7
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	340.56	1,279.40	51.7
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,289.50	51.7
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	314.82	1,204.80	51.8
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	314.82	1,280.40	52.1
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	631.62	1,280.40	52.1
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0	1,280.50	52.1
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	479.16	1,281.10	52.4
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	629.64	1,208.20	52.4
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	479.16	1,282.20	53.7
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,294.30	53.8
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	0	1,210.60	53.9
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	314.82	1,364.80	54
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	629.64	1,215.00	54.1
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0	1,277.70	54.4
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0	1,214.10	54.5
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	637.56	1,205.90	54.9
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	314.82	1,292.70	55.7
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	629.64	1,200.80	56.2
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	629.64	1,208.20	56.3
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	56.4
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	629.64	1,222.80	57
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	629.64	1,292.00	57.1
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	629.64	1,204.20	57.2
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	629.64	1,215.30	57.2
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.70	57.4
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	314.82	1,302.80	57.4
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	314.82	1,369.50	57.7
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0	1,283.50	58.2

Junction Nodes- MDD

710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	58.6
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	629.64	1,277.80	58.8
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	629.64	1,210.90	58.8
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	314.82	1,281.50	59.1
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	629.64	1,296.60	59.1
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	199.98	1,229.10	59.3
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,280.30	59.4
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,282.90	59.6
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,228.00	59.7
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	431.64	1,276.90	60.1
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	60.6
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0	1,280.20	60.7
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,368.40	60.7
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,201.00	61
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	199.98	1,231.30	61.1
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	637.56	1,199.50	61.2
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	629.64	1,285.50	61.2
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	637.56	1,200.80	61.3
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	629.64	1,216.00	61.4
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	629.64	1,192.60	61.7
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	629.64	1,279.40	62
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,214.10	62.3
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0	1,229.50	62.5
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0	1,199.80	62.7
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	629.64	1,296.90	62.7
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	891	1,277.60	63
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	629.64	1,361.60	63
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	63.2
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0	1,224.10	63.2
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	1,199.88	1,279.30	63.3
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	63.8
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,280.40	63.8
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	952.38	1,199.50	63.8
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	1,259.28	1,276.80	64.4
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,319.80	64.8
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,280.30	65
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	655.38	1,286.90	65.7
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0	1,280.20	65.8
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,211.60	66
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	944.46	1,282.70	66.1
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	340.56	1,287.90	66.2
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0	1,279.90	66.6
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	439.56	1,230.90	66.6
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	629.64	1,351.30	67.2
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	340.56	1,284.70	67.4
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	1,069.20	1,287.30	67.6
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,218.40	67.7
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0	1,279.70	67.8
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	672.21	1,377.10	68
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0	1,276.40	68.1
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	629.64	1,191.80	68.3
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	340.56	1,288.20	68.4
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0	1,279.10	68.8
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	952.38	1,194.30	68.9
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	439.56	1,287.50	69
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.50	69
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	672.21	1,380.00	69.2
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	479.16	1,280.40	69.4
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	780.12	1,287.80	70
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	199.98	1,234.20	70.2

Junction Nodes- MDD

799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	944.46	1,272.30	70.2
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	952.38	1,193.90	70.9
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	1,199.88	1,278.40	71.1
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	629.64	1,187.40	71.1
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	629.64	1,188.10	71.4
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	1,574.10	1,275.40	71.6
309	J-196	1,112.00	116: Zone - 1	<Collection: 1 item>	629.64	1,278.50	72
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	629.64	1,277.00	72.3
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,367.20	72.4
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	199.98	1,238.20	72.8
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,279.10	73.2
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	314.82	1,278.40	73.3
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	811.8	1,285.90	73.5
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	514.8	1,228.10	73.6
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	479.16	1,282.10	73.6
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	1,259.28	1,192.60	73.8
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	1,259.28	1,348.90	73.9
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	74.5
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,278.10	74.9
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,278.10	74.9
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	944.46	1,363.50	75.1
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	629.64	1,273.70	75.1
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	199.98	1,239.90	75.2
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,374.20	75.4
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0	1,375.40	75.5
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	629.64	1,373.60	75.5
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.70	75.6
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,375.10	75.7
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	629.64	1,368.10	75.7
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	629.64	1,275.50	75.9
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	629.64	1,275.00	76.6
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	693	1,276.20	77.1
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0	1,373.30	77.1
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	944.46	1,348.30	77.1
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,278.30	77.1
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0	1,374.60	77.3
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	314.82	1,389.50	77.7
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	853.38	1,288.00	78.3
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	780.12	1,286.40	78.5
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	629.64	1,274.60	78.6
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0	1,373.70	78.6
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	78.8
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	78.8
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	1,199.88	1,372.80	79.1
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0	1,373.00	79.2
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0	1,374.50	79.4
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	1,259.28	1,272.10	79.7
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	314.82	1,381.20	80.1
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	1,279.08	1,371.20	80.1
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	1,285.02	1,285.50	80.2
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	629.64	1,368.10	80.5
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	809.82	1,278.40	80.7
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	413.82	1,286.80	80.8
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,371.20	81
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	81.4
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	629.64	1,368.30	81.5
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,373.40	82
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	1,279.08	1,370.70	82.5
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	314.82	1,374.90	82.6
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0	1,373.00	83.1

Junction Nodes- MDD

1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,282.10	83.1
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,371.20	83.2
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,372.00	83.5
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,372.50	83.7
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	396	1,373.50	83.7
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,363.90	83.9
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	84
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	199.98	1,239.80	84.3
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,285.90	84.8
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	629.64	1,366.20	84.9
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	495	1,373.20	84.9
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,286.40	85
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	314.82	1,368.00	85.7
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0	1,373.40	85.8
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	629.64	1,369.80	86.5
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	594	1,373.20	87.1
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	132.66	1,373.10	87.4
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	629.64	1,372.40	87.6
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	87.9
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	87.9
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,373.10	87.9

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.80	40.6
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	336.4	1,258.50	41.8
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,267.30	42.1
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,367.50	42.2
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,268.20	42.5
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,189.30	43
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,103.20	43.8
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0	1,187.70	44
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0.00	1,371.80	44
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,187.70	44.4
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	1,611.36	1,102.90	44.5
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,270.40	45.2
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	578.61	1,264.50	45.2
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,272.50	45.2
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0.00	1,104.80	45.3
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,275.10	45.5
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,275.10	45.5
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,156.10	45.9
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0	1,275.20	46.4
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,277.70	46.6
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0.00	1,259.70	46.6
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0.00	1,195.90	46.7
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,179.50	47
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	534.88	1,193.90	47.1
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,275.10	47.6
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,189.30	47.7
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	1,086.57	1,275.40	47.8
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,110.70	47.9
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,274.90	48
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0	1,275.30	48.2
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,368.60	48.7
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	534.88	1,352.90	48.9
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0	1,276.10	48.9
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,171.80	49.2
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,284.30	49.5
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,204.80	49.7
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0.00	1,205.20	49.8
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,276.50	50
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	814.09	1,275.70	50.1
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,207.80	50.1
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,203.10	50.2
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,277.70	50.9
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0.00	1,277.70	50.9
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	534.88	1,277.70	50.9
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,177.80	51
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	0.00	1,203.90	51
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,170.20	51.1
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,260.20	51.1
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	814.09	1,276.80	51.4
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,191.30	51.6
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,142.30	51.6
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,289.50	51.7
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,153.50	51.7
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	733.35	1,257.70	51.8
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,178.70	51.8

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0.00	1,175.60	52.2
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,317.20	52.4
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,144.20	52.4
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,205.50	53
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,158.00	53.2
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,214.60	53.5
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,201.80	53.6
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,195.90	54.5
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	534.88	1,290.20	54.6
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0.00	1,276.30	54.7
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0.00	1,275.50	54.7
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,201.90	54.9
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,287.10	55
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,157.40	55.1
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,344.60	55.6
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.70	55.7
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,257.20	55.9
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,300.30	56.4
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	534.88	1,367.20	56.7
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0.00	1,279.20	56.7
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	339.76	1,223.30	56.8
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,221.80	57
710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,277.10	57.2
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,275.40	57.3
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,206.60	57.4
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,310.70	57.4
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.60	57.8
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,156.10	58
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.00	58.4
799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,245.30	58.5
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,267.30	58.5
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	534.88	1,280.60	58.7
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	339.76	1,226.10	58.9
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,281.10	59.3
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0	1,256.20	59.4
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0	1,277.80	59.6
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,274.10	59.7
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0.00	1,216.80	60.1
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0.00	1,224.00	60.1
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,309.00	60.2
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0	1,280.80	60.5
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.60	61.3
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,274.90	61.4
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,201.90	61.8
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	2,674.38	1,253.50	62.1
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.60	63
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0.00	1,278.70	63
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0.00	1,278.70	63
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0	1,275.00	63.6
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,278.40	64.2
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,210.40	64.2
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	578.61	1,278.70	64.8
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,284.70	64.8
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,319.80	64.8
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0.00	1,275.80	64.8

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,281.00	65.3
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,371.70	65.6
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	578.61	1,287.30	65.9
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	1,816.56	1,284.30	66.3
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0.00	1,276.70	66.5
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	746.81	1,230.90	66.6
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0	1,274.60	66.9
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	814.09	1,275.00	67.1
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	578.61	1,286.30	67.6
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	746.81	1,284.40	67.7
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,244.70	67.8
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,367.80	68.3
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	339.76	1,230.50	68.6
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,268.70	68.7
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,284.80	68.7
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,272.80	68.7
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,379.90	69.2
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,259.90	69.2
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,350.00	69.2
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,360.40	69.4
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.50	69.4
309	J-196	1,112.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,272.50	69.5
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,360.50	69.9
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	534.88	1,272.40	70.7
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,363.80	70.9
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	814.09	1,276.70	71.2
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,274.80	71.3
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,264.80	71.3
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.80	71.3
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	874.64	1,223.10	71.4
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,263.40	71.6
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	1,177.40	1,263.70	71.7
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0.00	1,366.90	71.8
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,359.00	71.8
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,366.10	71.9
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	1,379.24	1,282.20	71.9
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0.00	1,276.70	72.1
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,271.80	72.2
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,271.90	72.2
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	339.76	1,237.10	72.3
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	72.9
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,354.80	73
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0	1,365.00	73.1
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,269.30	73.2
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,262.50	73.3
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	2,038.58	1,359.70	73.4
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0	1,362.40	73.7
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,354.80	73.9
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,352.20	74.5
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.50	75.1
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	75.1
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0	1,364.70	75.1
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.80	75.2
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,354.80	76.1
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,276.70	76.4

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,276.70	76.4
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,355.70	76.4
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	534.88	1,373.20	76.7
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,282.30	76.7
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,361.50	76.8
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	1,375.88	1,269.60	76.8
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	534.88	1,361.80	76.9
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,357.10	77.1
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	534.88	1,389.10	77.5
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0	1,360.30	77.6
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	2,183.24	1,279.40	77.6
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	1,449.88	1,287.90	78.3
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,351.10	78.4
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,360.60	78.6
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	672.8	1,362.00	78.7
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,363.20	79.3
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	841	1,361.20	79.7
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	703.08	1,284.80	80
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.40	80.2
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0	1,361.60	80.7
1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,276.70	80.8
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,357.50	81.1
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,358.20	81.4
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	1,009.20	1,361.10	81.8
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	225.39	1,360.50	82
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	534.88	1,360.00	82.2
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,360.50	82.4
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,360.50	82.4
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,360.50	82.4
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,281.30	82.8
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,282.30	83.2
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.60	84.2

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
850	P-509	158	12	130	FALSE	0	0.00	0	0	0
851	P-510	243	12	130	FALSE	0	0.00	0	0	0
878	P-527	451	12	130	FALSE	0	-115.81	0	0	0.33
871	P-522	811	12	130	FALSE	0	111.74	0	0	0.32
877	P-526	1,269	12	130	FALSE	0	0	0	0	0
613	P-359	1,326	12	130	FALSE	0	907.73	0.002	1,326	2.58
1297	P-800	1,432	12	130	FALSE	0	-219.04	0	0	0.62
616	P-362	1,484	12	130	FALSE	0	747.55	0.001	1,484	2.12
1159	P-709	1,762	12	130	FALSE	0	-596.72	0.001	0	1.69
1166	P-714	1,805	12	130	FALSE	0	-639.89	0.001	0	1.82
1296	P-799	2,015	12	130	FALSE	0	111.74	0	0	0.32
913	P-546	2,112	12	130	FALSE	0	-400.46	0	0	1.14
944	P-568	2,317	12	130	FALSE	0	703.08	0.001	0	1.99
1162	P-711	2,402	12	130	FALSE	0	-334.91	0	0	0.95
1294	P-798	2,513	12	130	FALSE	0	175.60	0	0	0.5
1161	P-710	2,586	12	130	FALSE	0	-241.45	0	0	0.68
1298	P-801	2,615	12	130	FALSE	0	-107.30	0	0	0.3
1075	P-657	4,087	12	130	FALSE	0	-767.89	0.002	0	2.18
1170	P-717	4,225	12	130	FALSE	0	-587.75	0.001	0	1.67
1171	P-718	4,601	12	130	FALSE	0	-791.85	0.002	0	2.25
1076	P-658	5,050	12	130	FALSE	0	-650.42	0.001	0	1.85
1133	P-692	5,511	12	130	FALSE	0	253.06	0	0	0.72
1107	P-676	5,983	12	130	FALSE	0	709.54	0.001	0	2.01
1290	P-795	8,450	12	130	FALSE	0	640.89	0.001	0	1.82
1264	P-780	553	12	130	FALSE	0	0.00	0	1,097	0
522	P-249	583	12	130	FALSE	0	-969.87	0.002	583	2.75
502	P-223	909	12	130	FALSE	0	-707.32	0.001	909	2.01
456	P-159	1,101	12	130	FALSE	0	0.00	0	1,239	0
602	P-346	1,106	12	130	FALSE	0	822.64	0.002	1,106	2.33
458	P-161	1,227	12	130	FALSE	0	-1,297.10	0.004	1,227	3.68
520	P-246	1,478	12	130	FALSE	0	-969.87	0.002	1,478	2.75
457	P-160	1,805	12	130	FALSE	0	0.00	0	1,800	0
452	P-152	1,809	12	130	FALSE	0	1,203.28	0.004	1,705	3.41
464	P-167	1,865	12	130	FALSE	0	1,179.70	0.003	1,865	3.35
598	P-342	1,871	12	130	FALSE	0	-591.47	0.001	1,871	1.68
601	P-345	2,573	12	130	FALSE	0	-650.68	0.001	2,573	1.85
453	P-155	2,705	12	130	FALSE	0	-307.64	0	1,307	0.87
501	P-222	2,758	12	130	FALSE	0	-876.04	0.002	2,758	2.49
519	P-245	3,085	12	130	FALSE	0	-121.22	0	3,085	0.34
599	P-343	3,544	12	130	FALSE	0	168.73	0	3,544	0.48
465	P-168	4,142	12	130	FALSE	0	-267.42	0	3,112	0.76
715	P-427	239	16	130	FALSE	0	0	0	0	0
1206	P-742	306	16	130	FALSE	0	0	0	2,609	0
714	P-426	473	16	130	FALSE	0	0	0	0	0
1073	P-656	532	16	130	FALSE	0	0	0	0	0
625	P-372	604	16	130	FALSE	0	803.19	0	604	1.28
1146	P-700	669	16	130	FALSE	0	0.00	0	0	0
1232	P-759	675	16	130	FALSE	0	3,750.86	0.007	0	5.99
1202	P-740	686	16	130	FALSE	0	0.00	0	0	0
1186	P-728	806	16	130	FALSE	0	-599.02	0	0	0.96
1215	P-748	868	16	130	FALSE	0	-1,746.70	0.002	4,990	2.79
477	P-186	938	16	130	FALSE	0	2,345.40	0.003	938	3.74
476	P-185	961	16	130	FALSE	0	1,069.75	0.001	961	1.71
868	P-520	966	16	130	FALSE	0	0	0	0	0
975	P-589	1,076	16	130	FALSE	0	0	0	0	0

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
542	P-279	1,085	16	130	FALSE	0	-143.98	0	1,085	0.23
1251	P-771	1,099	16	130	FALSE	0	-997.46	0.001	0	1.59
539	P-271	1,156	16	130	FALSE	0	-16.75	0	908	0.03
467	P-173	1,159	16	130	FALSE	0	1,224.17	0.001	1,159	1.95
833	P-497	1,306	16	130	FALSE	0	1,069.75	0.001	0	1.71
1178	P-722	1,337	16	130	FALSE	0	0.00	0	0	0
466	P-172	1,370	16	130	FALSE	0	-1,563.64	0.001	1,370	2.5
1209	P-744	1,375	16	130	FALSE	0	0.00	0	0	0
1174	P-720	1,431	16	130	FALSE	0	0	0	0	0
952	P-572	1,463	16	130	FALSE	0	-895.93	0.001	0	1.43
865	P-518	1,641	16	130	FALSE	0	0.00	0	0	0
709	P-423	1,662	16	130	FALSE	0	225.39	0	0	0.36
610	P-356	1,687	16	130	FALSE	0	1,713.62	0.002	1,687	2.73
1132	P-691	1,743	16	130	FALSE	0	-484.06	0	0	0.77
470	P-176	1,756	16	130	FALSE	0	0.00	0	1,756	0
1066	P-651	1,770	16	130	FALSE	0	2,497.90	0.003	0	3.99
924	P-555	1,811	16	130	FALSE	0	223.06	0	0	0.36
909	P-544	1,871	16	130	FALSE	0	-1,464.51	0.001	0	2.34
712	P-425	1,900	16	130	FALSE	0	-641.66	0	0	1.02
905	P-542	1,931	16	130	FALSE	0	0.00	0	0	0
614	P-360	1,954	16	130	FALSE	0	489.41	0	1,954	0.78
608	P-354	2,014	16	130	FALSE	0	-814.37	0	2,014	1.3
911	P-545	2,052	16	130	FALSE	0	181.22	0	0	0.29
606	P-352	2,065	16	130	FALSE	0	2,114.92	0.002	2,065	3.37
609	P-355	2,077	16	130	FALSE	0	805.89	0	2,077	1.29
469	P-175	2,180	16	130	FALSE	0	1,775.80	0.002	2,180	2.83
1288	P-793	2,184	16	130	FALSE	0	570.85	0	0	0.91
936	P-563	2,228	16	130	FALSE	0	861.56	0	0	1.37
1237	P-763	2,261	16	130	FALSE	0	1,069.75	0.001	0	1.71
468	P-174	2,271	16	130	FALSE	0	1,509.83	0.001	2,271	2.41
1207	P-743	2,303	16	130	FALSE	0	0.00	0	2,609	0
1254	P-773	2,336	16	130	FALSE	0	-1,273.20	0.001	0	2.03
445	P-144	2,349	16	130	FALSE	0	105.35	0	2,349	0.17
1154	P-705	2,374	16	130	FALSE	0	1,919.29	0.002	0	3.06
788	P-470	2,393	16	130	FALSE	0	4,813.88	0.011	0	7.68
977	P-591	2,403	16	130	FALSE	0	0.00	0	0	0
824	P-491	2,415	16	130	FALSE	0	339.76	0	0	0.54
1191	P-732	2,432	16	130	FALSE	0	-1,215.46	0.001	0	1.94
1168	P-715	2,489	16	130	FALSE	0	-1,343.66	0.001	0	2.14
424	P-119	2,499	16	130	FALSE	0	1,960.32	0.002	2,499	3.13
478	P-187	2,506	16	130	FALSE	0	2,503.21	0.003	2,506	3.99
427	P-123	2,523	16	130	FALSE	0	-1,454.98	0.001	2,523	2.32
1283	P-790	2,530	16	130	FALSE	0	734.26	0	0	1.17
789	P-471	2,537	16	130	FALSE	0	2,139.50	0.003	0	3.41
521	P-247	2,544	16	130	FALSE	0	969.87	0.001	2,544	1.55
1282	P-789	2,552	16	130	FALSE	0	163.41	0	0	0.26
637	P-384	2,560	16	130	FALSE	0	2,890.09	0.004	2,560	4.61
449	P-148	2,592	16	130	FALSE	0	-864.52	0	2,592	1.38
636	P-383	2,599	16	130	FALSE	0	3,424.96	0.006	2,599	5.47
964	P-582	2,600	16	130	FALSE	0	-2,733.65	0.004	0	4.36
814	P-486	2,604	16	130	FALSE	0	1,069.75	0.001	0	1.71
605	P-351	2,630	16	130	FALSE	0	230.79	0	2,630	0.37
1164	P-712	2,657	16	130	FALSE	0	519.34	0	0	0.83
419	P-113	2,673	16	130	FALSE	0	-672.17	0	2,642	1.07
1155	P-706	2,691	16	130	FALSE	0	2,516.00	0.003	0	4.01

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
808	P-483	2,712	16	130	FALSE	0	-5,130.83	0.013	0	8.19
508	P-231	2,716	16	130	FALSE	0	-672.20	0	2,692	1.07
450	P-149	2,719	16	130	FALSE	0	-2,161.63	0.003	2,719	3.45
828	P-494	2,728	16	130	FALSE	0	-1,470.11	0.001	0	2.35
661	P-396	2,752	16	130	FALSE	0	-5,588.58	0.015	0	8.92
600	P-344	2,775	16	130	FALSE	0	-285.66	0	2,775	0.46
1169	P-716	2,788	16	130	FALSE	0	-755.91	0	0	1.21
873	P-523	2,794	16	130	FALSE	0	0.00	0	0	0
1293	P-797	2,810	16	130	FALSE	0	-863.18	0	0	1.38
1072	P-655	2,827	16	130	FALSE	0	-767.89	0	0	1.23
556	P-297	2,835	16	130	FALSE	0	3,030.53	0.005	2,835	4.84
1287	P-792	2,840	16	130	FALSE	0	-116.73	0	0	0.19
1292	P-796	2,920	16	130	FALSE	0	-687.58	0	0	1.1
1054	P-643	3,010	16	130	FALSE	0	-4,146.42	0.009	0	6.62
425	P-120	3,032	16	130	FALSE	0	661.53	0	3,032	1.06
596	P-340	3,134	16	130	FALSE	0	1,308.62	0.001	3,134	2.09
954	P-574	3,160	16	130	FALSE	0	-1,671.21	0.002	0	2.67
1190	P-731	3,182	16	130	FALSE	0	-3,432.32	0.006	0	5.48
615	P-361	3,214	16	130	FALSE	0	-258.14	0	3,214	0.41
607	P-353	3,220	16	130	FALSE	0	1,300.55	0.001	3,220	2.08
626	P-373	3,356	16	130	FALSE	0	1,699.11	0.002	3,356	2.71
1247	P-769	3,456	16	130	FALSE	0	-1,187.22	0.001	0	1.89
479	P-188	3,476	16	130	FALSE	0	-443.47	0	3,476	0.71
1255	P-774	3,558	16	130	FALSE	0	-1,744.12	0.002	0	2.78
1143	P-698	3,566	16	130	FALSE	0	383.28	0	0	0.61
1182	P-725	3,571	16	130	FALSE	0	0.00	0	0	0
1252	P-772	3,576	16	130	FALSE	0	-2,596.29	0.004	0	4.14
821	P-489	3,589	16	130	FALSE	0	-1,428.76	0.001	0	2.28
1175	P-721	3,637	16	130	FALSE	0	0.00	0	0	0
822	P-490	3,659	16	130	FALSE	0	-1,768.53	0.002	0	2.82
972	P-587	3,847	16	130	FALSE	0	-599.02	0	0	0.96
1220	P-751	3,888	16	130	FALSE	0	0.00	0	0	0
819	P-488	3,891	16	130	FALSE	0	-1,089.00	0.001	0	1.74
935	P-562	3,923	16	130	FALSE	0	-1,414.52	0.001	0	2.26
1197	P-737	3,953	16	130	FALSE	0	-1,276.08	0.001	0	2.04
1165	P-713	4,016	16	130	FALSE	0	671.31	0	0	1.07
772	P-460	4,081	16	130	FALSE	0	2,183.45	0.003	0	3.48
941	P-566	4,104	16	130	FALSE	0	-3,354.96	0.006	0	5.35
1214	P-747	4,123	16	130	FALSE	0	-1,746.70	0.002	4,990	2.79
482	P-193	4,209	16	130	FALSE	0	1,950.14	0.002	4,209	3.11
919	P-551	4,225	16	130	FALSE	0	911.69	0.001	0	1.45
1231	P-758	4,265	16	130	FALSE	0	3,750.86	0.007	0	5.99
1257	P-776	4,280	16	130	FALSE	0	2,069.75	0.002	0	3.3
702	P-418	4,280	16	130	FALSE	0	1,177.40	0.001	0	1.88
1006	P-607	4,289	16	130	FALSE	0	-706.04	0	0	1.13
1147	P-701	4,301	16	130	FALSE	0	383.28	0	0	0.61
966	P-583	4,354	16	130	FALSE	0	-2,646.52	0.004	0	4.22
1104	P-673	4,374	16	130	FALSE	0	-1,308.27	0.001	0	2.09
867	P-519	4,447	16	130	FALSE	0	0	0	0	0
923	P-554	4,680	16	130	FALSE	0	-2,139.50	0.003	0	3.41
963	P-581	4,804	16	130	FALSE	0	-2,093.55	0.002	0	3.34
1256	P-775	4,806	16	130	FALSE	0	1,598.82	0.001	0	2.55
485	P-196	4,867	16	130	FALSE	0	-1,069.75	0.001	4,848	1.71
956	P-576	4,989	16	130	FALSE	0	-1,335.72	0.001	0	2.13
657	P-394	4,990	16	130	FALSE	0	890.04	0.001	0	1.42

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
764	P-456	4,997	16	130	FALSE	0	1,515.30	0.001	0	2.42
957	P-577	4,999	16	130	FALSE	0	-294.14	0	0	0.47
802	P-478	5,066	16	130	FALSE	0	412.95	0	0	0.66
766	P-457	5,066	16	130	FALSE	0	-894.47	0.001	0	1.43
890	P-533	5,070	16	130	FALSE	0	1,059.10	0.001	0	1.69
901	P-539	5,075	16	130	FALSE	0	931.78	0.001	0	1.49
686	P-410	5,092	16	130	FALSE	0	574.97	0	0	0.92
665	P-398	5,092	16	130	FALSE	0	-1,528.18	0.001	0	2.44
680	P-406	5,093	16	130	FALSE	0	-1,362.11	0.001	0	2.17
961	P-580	5,093	16	130	FALSE	0	-169.96	0	0	0.27
667	P-399	5,096	16	130	FALSE	0	2,259.59	0.003	0	3.61
827	P-493	5,116	16	130	FALSE	0	-935.23	0.001	0	1.49
888	P-532	5,117	16	130	FALSE	0	1,728.39	0.002	0	2.76
780	P-465	5,136	16	130	FALSE	0	2,126.91	0.003	0	3.39
805	P-480	5,138	16	130	FALSE	0	-1,726.56	0.002	0	2.76
902	P-540	5,150	16	130	FALSE	0	1,001.33	0.001	0	1.6
969	P-585	5,150	16	130	FALSE	0	0.00	0	0	0
730	P-434	5,172	16	130	FALSE	0	2,045.22	0.002	0	3.26
747	P-445	5,172	16	130	FALSE	0	-1,611.36	0.002	0	2.57
895	P-536	5,191	16	130	FALSE	0	-3,243.07	0.006	0	5.17
899	P-538	5,192	16	130	FALSE	0	1,457.64	0.001	0	2.33
892	P-534	5,192	16	130	FALSE	0	-10.65	0	0	0.02
894	P-535	5,194	16	130	FALSE	0	-1,261.63	0.001	0	2.01
669	P-400	5,194	16	130	FALSE	0	926.73	0.001	0	1.48
663	P-397	5,195	16	130	FALSE	0	2,486.60	0.003	0	3.97
781	P-466	5,207	16	130	FALSE	0	2,944.89	0.005	0	4.7
800	P-477	5,207	16	130	FALSE	0	2,017.57	0.002	0	3.22
733	P-436	5,216	16	130	FALSE	0	0.00	0	0	0
807	P-482	5,242	16	130	FALSE	0	-3,057.28	0.005	0	4.88
750	P-448	5,246	16	130	FALSE	0	-671.98	0	0	1.07
897	P-537	5,250	16	130	FALSE	0	63.18	0	0	0.1
731	P-435	5,263	16	130	FALSE	0	427.14	0	0	0.68
782	P-467	5,279	16	130	FALSE	0	916.95	0.001	0	1.46
921	P-553	5,283	16	130	FALSE	0	1,046.59	0.001	0	1.67
946	P-569	5,287	16	130	FALSE	0	1,327.48	0.001	0	2.12
917	P-550	5,287	16	130	FALSE	0	920.62	0.001	0	1.47
774	P-461	5,290	16	130	FALSE	0	1,648.58	0.002	0	2.63
475	P-184	5,308	16	130	FALSE	0	-672.20	0	5,295	1.07
948	P-570	5,350	16	130	FALSE	0	683.35	0	0	1.09
752	P-449	5,375	16	130	FALSE	0	-2,187.83	0.003	0	3.49
916	P-549	5,408	16	130	FALSE	0	1,682.21	0.002	0	2.68
1172	P-719	5,410	16	130	FALSE	0	-2,991.33	0.005	0	4.77
790	P-472	5,418	16	130	FALSE	0	-1,604.63	0.001	0	2.56
776	P-462	5,419	16	130	FALSE	0	-1,290.17	0.001	0	2.06
744	P-443	5,490	16	130	FALSE	0	-1,068.65	0.001	0	1.71
1056	P-645	5,491	16	130	FALSE	0	3,244.71	0.006	0	5.18
1057	P-646	5,492	16	130	FALSE	0	1,245.32	0.001	0	1.99
1131	P-690	5,496	16	130	FALSE	0	-737.12	0	0	1.18
745	P-444	5,594	16	130	FALSE	0	2,909.78	0.005	0	4.64
920	P-552	5,619	16	130	FALSE	0	888.53	0.001	0	1.42
743	P-442	5,664	16	130	FALSE	0	842.18	0	0	1.34
1183	P-726	5,714	16	130	FALSE	0	453.01	0	0	0.72
1188	P-730	5,747	16	130	FALSE	0	2,758.62	0.004	0	4.4
1192	P-733	5,761	16	130	FALSE	0	2,216.86	0.003	0	3.54
829	P-495	5,795	16	130	FALSE	0	1,859.94	0.002	0	2.97

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
914	P-547	5,879	16	130	FALSE	0	-935.34	0.001	0	1.49
748	P-446	7,695	16	130	FALSE	0	0.00	0	0	0
1236	P-762	8,386	16	130	FALSE	0	1,069.75	0.001	0	1.71
1055	P-644	250	24	130	FALSE	0	0.00	0	0	0
1187	P-729	446	24	130	FALSE	0	-599.02	0	0	0.42
417	P-111	639	24	130	FALSE	0	-2,523.00	0	639	1.79
1005	P-606	797	24	130	FALSE	0	5,549.43	0.002	0	3.94
603	P-347	837	24	130	FALSE	0	1,684.57	0	837	1.19
979	P-592	905	24	130	FALSE	0	0	0	0	0
1140	P-696	977	24	130	FALSE	0	2,523.00	0	0	1.79
848	P-508	988	24	130	FALSE	0	423.14	0	0	0.3
1098	P-670	1,257	24	130	FALSE	0	2,616.79	0.001	0	1.86
428	P-124	1,278	24	130	FALSE	0	4,953.63	0.002	1,278	3.51
518	P-244	1,365	24	130	FALSE	0	-1,506.81	0	1,365	1.07
1068	P-652	1,397	24	130	FALSE	0	-6,848.39	0.003	0	4.86
430	P-126	1,581	24	130	FALSE	0	4,167.19	0.001	1,581	2.96
429	P-125	1,610	24	130	FALSE	0	4,167.19	0.001	1,610	2.96
931	P-560	1,621	24	130	FALSE	0	-3,350.94	0.001	0	2.38
1069	P-653	1,701	24	130	FALSE	0	-4,910.99	0.002	0	3.48
1097	P-669	1,768	24	130	FALSE	0	-1,975.13	0	0	1.4
618	P-364	1,786	24	130	FALSE	0	-2,523.00	0	1,786	1.79
825	P-492	1,792	24	130	FALSE	0	-4,704.58	0.002	0	3.34
798	P-476	1,971	24	130	FALSE	0	4,671.54	0.002	0	3.31
907	P-543	2,028	24	130	FALSE	0	-7,140.80	0.003	0	5.06
460	P-163	2,082	24	130	FALSE	0	-1,543.67	0	2,082	1.09
1200	P-739	2,095	24	130	FALSE	0	3,748.50	0.001	0	2.66
1145	P-699	2,203	24	130	FALSE	0	625.92	0	0	0.44
1128	P-688	2,207	24	130	FALSE	0	3,720.94	0.001	0	2.64
953	P-573	2,267	24	130	FALSE	0	2,982.29	0.001	0	2.12
418	P-112	2,333	24	130	FALSE	0	-2,523.00	0	2,333	1.79
655	P-393	2,444	24	130	FALSE	0	-1,395.07	0	0	0.99
959	P-578	2,487	24	130	FALSE	0	-2,392.29	0	0	1.7
1129	P-689	2,518	24	130	FALSE	0	3,467.88	0.001	0	2.46
676	P-404	2,546	24	130	FALSE	0	-2,282.95	0	0	1.62
1221	P-752	2,614	24	130	FALSE	0	3,748.50	0.001	0	2.66
1158	P-708	2,617	24	130	FALSE	0	-7,413.05	0.004	0	5.26
611	P-357	2,623	24	130	FALSE	0	211.25	0	2,623	0.15
455	P-157	2,673	24	130	FALSE	0	-530.39	0	1,397	0.38
454	P-156	2,689	24	130	FALSE	0	1,270.56	0	1,239	0.9
1157	P-707	2,702	24	130	FALSE	0	-6,816.33	0.003	0	4.83
653	P-392	2,750	24	130	FALSE	0	-648.26	0	0	0.46
612	P-358	2,791	24	130	FALSE	0	-1,231.36	0	2,791	0.87
617	P-363	2,871	24	130	FALSE	0	-2,523.00	0	2,871	1.79
980	P-593	2,886	24	130	FALSE	0	1,954.08	0	0	1.39
459	P-162	2,919	24	130	FALSE	0	-1,719.27	0	4,198	1.22
927	P-557	2,988	24	130	FALSE	0	-9,497.00	0.006	0	6.74
423	P-118	3,032	24	130	FALSE	0	4,794.11	0.002	3,032	3.4
555	P-296	3,500	24	130	FALSE	0	5,936.19	0.002	3,500	4.21
982	P-594	3,679	24	130	FALSE	0	5,860.44	0.002	0	4.16
1193	P-734	3,927	24	130	FALSE	0	-107.69	0	0	0.08
1195	P-735	4,047	24	130	FALSE	0	-5,602.16	0.002	0	3.97
1196	P-736	4,098	24	130	FALSE	0	-6,878.23	0.003	0	4.88
1141	P-697	4,266	24	130	FALSE	0	1,466.92	0	0	1.04
1105	P-674	4,900	24	130	FALSE	0	870.48	0	0	0.62
760	P-454	4,996	24	130	FALSE	0	-3,572.47	0.001	0	2.53

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
703	P-419	5,093	24	130	FALSE	0	-3,117.47	0.001	0	2.21
756	P-452	5,097	24	130	FALSE	0	-2,018.77	0	0	1.43
1184	P-727	5,103	24	130	FALSE	0	5,068.17	0.002	0	3.59
810	P-484	5,130	24	130	FALSE	0	4,537.75	0.001	0	3.22
1269	P-783	5,155	24	130	FALSE	0	7,675.67	0.004	0	5.44
755	P-451	5,168	24	130	FALSE	0	4,132.60	0.001	0	2.93
685	P-409	5,195	24	130	FALSE	0	-2,869.79	0.001	0	2.04
770	P-459	5,208	24	130	FALSE	0	3,613.42	0.001	0	2.56
960	P-579	5,235	24	130	FALSE	0	-3,376.33	0.001	0	2.39
671	P-401	5,297	24	130	FALSE	0	-4,313.78	0.001	0	3.06
682	P-407	5,297	24	130	FALSE	0	3,880.71	0.001	0	2.75
672	P-402	5,305	24	130	FALSE	0	1,928.31	0	0	1.37
768	P-458	5,348	24	130	FALSE	0	-3,852.61	0.001	0	2.73
967	P-584	5,402	24	130	FALSE	0	6,256.29	0.003	0	4.44
762	P-455	5,490	24	130	FALSE	0	1,179.69	0	0	0.84
1106	P-675	5,604	24	130	FALSE	0	-3,248.50	0.001	0	2.3
933	P-561	5,978	24	130	FALSE	0	-452.46	0	0	0.32
1259	P-777	577	30	130	FALSE	0	-13,642.61	0.004	50	6.19
1249	P-770	715	30	130	FALSE	0	-14,881.10	0.004	50	6.75
1303	P-803	796	30	130	FALSE	0	7,202.91	0.001	0	3.27
1275	P-786	907	30	130	FALSE	0	-11,466.22	0.003	50	5.2
1261	P-778	1,030	30	130	FALSE	0	-10,108.80	0.002	50	4.59
1277	P-787	1,066	30	130	FALSE	0	13,721.06	0.004	50	6.23
1268	P-782	1,077	30	130	FALSE	0	-15,066.80	0.004	50	6.84
1266	P-781	1,249	30	130	FALSE	0	-10,513.25	0.002	50	4.77
1300	P-802	1,252	30	130	FALSE	0	12,671.29	0.003	0	5.75
983	P-595	1,593	30	130	FALSE	0	12,950.75	0.003	200	5.88
1271	P-784	1,783	30	130	FALSE	0	-7,550.30	0.001	0	3.43
1134	P-693	1,977	36	130	FALSE	0	-16,508.47	0.002	100	5.2
1102	P-672	2,429	36	130	FALSE	0	12,550.43	0.001	0	3.96
678	P-405	2,546	36	130	FALSE	0	11,024.43	0.001	0	3.47

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone) (psi)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System) (psi)	Is Fire Flow Run Balanced?
J-82	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	74.1	74.1	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-86	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	76.3	76.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-89	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	74.4	74.4	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-90	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	73.6	73.6	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-91	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	74	74	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-97-II	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	66.9	66.9	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-94	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	78.5	78.5	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-95	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	79.6	79.6	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V2-I	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	81.3	81.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V2-II	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	51.7	51.7	20	46.8	769: J-317	20	42.9	769: J-255	TRUE
J-96	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	60.7	60.7	20	46.8	769: J-317	20	42.9	769: J-255	TRUE
J-100	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	63.6	63.6	20	46.8	769: J-317	20	42.9	769: J-255	TRUE
J-101	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	67.3	67.3	20	46.7	769: J-317	20	42.9	769: J-255	TRUE
J-V23-I	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	72.5	72.5	20	46.7	769: J-317	20	42.9	769: J-255	TRUE
J-103	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	72.7	72.7	20	46.7	769: J-317	20	42.9	769: J-255	TRUE
J-111	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	53.7	53.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-115	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	75	75	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-119	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	77.3	77.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-120	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	73.8	73.8	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-121	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	49.8	49.8	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-123	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	73.6	73.6	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-124	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	47.3	47.3	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-V4-I	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	51.6	51.6	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-V4-II	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	49.3	49.3	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-126	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	65.1	65.1	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-127	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	67.3	67.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-129	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	73.6	73.6	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-V4-I	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	50.2	50.2	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-V4-II	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	51.2	51.2	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-V4-III	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	74.2	74.2	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-V4-IV	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	62.3	62.3	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-135	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	70	70	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-136	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	73.5	73.5	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-137	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	70	70	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-138	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	72.5	72.5	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-V25-II	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	50.1	50.1	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-143	117: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	52.5	52.5	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-144	117: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	54.7	54.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-V24-I	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	73.7	73.7	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-149	118: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	71.7	71.7	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-V24-II	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	66	66	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-161	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	64	64	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-164	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	78.7	78.7	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-165	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	64.6	64.6	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-168	117: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	52.2	52.2	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-169	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	49.1	49.1	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-170	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	76	76	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-171	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	77.3	77.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-173	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	46.8	46.8	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-174	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	63.3	63.3	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-175	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	50.7	50.7	20	46.3	769: J-255	20	42.9	769: J-255	TRUE
J-V7-III	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	69.3	69.3	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-182	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	77.7	77.7	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-183	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	79.5	79.5	20	42.8	769: J-255	20	42.9	769: J-255	TRUE
J-184	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	63.2	63.2	20	46.8	769: J-255	20	42.9	769: J-255	TRUE
J-185	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	65.9	65.9	20	46.5	769: J-255	20	42.9	769: J-255	TRUE
J-186	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	70	70	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-187	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	65.6	65.6	20	46.7	769: J-255	20	42.9	769: J-255	TRUE
J-188	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	58.8	58.8	20	46.7	769: J-255	20	42.9	769: J-255	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-199	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	59.9	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-200	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.7	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-201	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.8	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-202	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-205	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	76.5	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-212	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,569.20	3,069.20	20	67.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-213	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	68.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-214	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,290.12	2,790.12	20	69.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-215	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	77.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-216	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	52.7	20	48	1180: J-358	20	42.9	769: J-255	TRUE
J-217	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	66.7	20	48	1180: J-358	20	42.9	769: J-255	TRUE
J-218	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	57.8	20	48.8	1180: J-358	20	42.9	769: J-255	TRUE
J-219	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	59.2	20	48.9	1180: J-358	20	42.9	769: J-255	TRUE
J-220	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	66.3	20	49	1180: J-358	20	42.9	769: J-255	TRUE
J-221	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,765.02	3,265.02	20	78.9	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-222	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	68.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-223	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	66.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-224	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	65.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-225	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,353.38	2,853.38	20	78.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-226	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,311.80	2,811.80	20	72.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-227	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	60.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-228	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,999.98	2,499.98	20	75.3	20	49.2	769: J-255	20	42.9	769: J-255	TRUE
J-229	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,696.98	2,196.98	20	79.4	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-230	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	59.4	20	49.1	1218: J-365	20	42.9	769: J-255	TRUE
J-231	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,391.00	2,891.00	20	75.3	20	43.9	978: J-317	20	42.9	769: J-255	TRUE
J-232	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,309.82	2,809.82	20	77.3	20	44.7	978: J-317	20	42.9	769: J-255	TRUE
J-233	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,193.00	2,693.00	20	67.3	20	43.9	978: J-317	20	42.9	769: J-255	TRUE
J-234	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.2	20	48.8	978: J-317	20	42.9	769: J-255	TRUE
DZ-South	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	81.2	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-238	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	56.9	20	49.1	1218: J-365	20	42.9	769: J-255	TRUE
J-239	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	59.4	20	49	1180: J-358	20	42.9	769: J-255	TRUE
J-240	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	63.3	20	49	1180: J-358	20	42.9	769: J-255	TRUE
J-241	116: Zone - 0	2	TRUE	1,500.00	2,000.00	2,448.42	2,948.42	20	37.1	20	45.4	811: J-271	20	42.9	769: J-255	TRUE
J-242	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	57.7	20	49.3	1180: J-358	20	42.9	769: J-255	TRUE
J-243	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	69.8	20	49.2	1180: J-358	20	42.9	769: J-255	TRUE
J-244	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	53.7	20	49.2	1180: J-358	20	42.9	769: J-255	TRUE
J-245	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	63.5	20	49.1	1180: J-358	20	42.9	769: J-255	TRUE
J-246	115: Zone - 0	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	47.5	20	45.4	811: J-271	20	42.9	769: J-255	TRUE
J-247	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50.5	20	49.2	1180: J-358	20	42.9	769: J-255	TRUE
J-248	116: Zone - 1	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	49.7	20	48.7	1180: J-358	20	42.9	769: J-255	TRUE
J-249	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	80.6	20	42.8	769: J-255	20	42.9	769: J-255	TRUE
J-250	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	69.9	20	42.8	769: J-255	20	42.9	769: J-255	TRUE
J-251	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	57.3	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-252	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	70.8	20	42.7	769: J-255	20	42.7	769: J-255	TRUE
J-253	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	59.8	20	42.7	769: J-255	20	42.7	769: J-255	TRUE
J-254	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	49.4	20	42.6	769: J-255	20	42.6	769: J-255	TRUE
J-255	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	41.2	20	43.2	1103: J-342	20	42.6	769: J-255	TRUE
J-256	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50	20	42	769: J-255	20	42	769: J-255	TRUE
J-257	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	59.1	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-258	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	71.8	20	42.4	769: J-255	20	42.4	769: J-255	TRUE
J-259	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	45.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-260	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	57.5	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-261	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	56.3	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-262	118: Zone - 3	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	55.8	20	42.3	769: J-255	20	42.3	769: J-255	TRUE
J-263	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	56.1	20	46	777: J-259	20	42.9	769: J-255	TRUE
J-264	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	61.4	20	46.1	777: J-259	20	42.9	769: J-255	TRUE
J-265	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	63	20	46.2	777: J-259	20	42.9	769: J-255	TRUE
J-266	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	72	20	46.3	777: J-259	20	42.9	769: J-255	TRUE
J-268	117: Zone - 2	2	TRUE	1,500.00	2,000.00	3,074.10	3,574.10	20	67.2	20	46.4	978: J-317	20	42.9	769: J-255	TRUE
J-269	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	58	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-270	117: Zone - 2	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	29.4	20	33.9	1233: J-366	20	33.9	1233: J-366	TRUE
J-271	115: Zone - 0	2	TRUE	1,500.00	2,000.00	2,129.84	2,629.84	20	29.4	20	33.9	1233: J-366	20	33.9	1233: J-366	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone) (psi)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System) (psi)	Is Fire Flow Run Balanced?
J-272	116: Zone-1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.5	20	49.3	1180: J-358	20	42.9	769: J-255	TRUE
J-274	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,899.98	2,199.98	20	72	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-275	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,899.98	2,199.98	20	57.1	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-276	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,899.98	2,199.98	20	66.1	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-277	116: Zone-1	2	TRUE	1,500.00	2,000.00	1,899.98	2,199.98	20	81.6	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-278	117: Zone-1	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	53.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-279	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,998.00	2,198.00	20	44.3	20	46	777: J-259	20	42.9	769: J-255	TRUE
J-280	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	72.8	20	46.7	978: J-317	20	42.9	769: J-255	TRUE
J-283	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-284	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-285	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	41.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-287	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	73.1	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-288	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	76.3	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-289	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	71.7	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-290	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	71.9	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-291	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	61.2	20	42.8	978: J-317	20	42.8	769: J-255	TRUE
J-292	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-293	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	48.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-294	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	55.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-295	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	51.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-296	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-297	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.2	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-298	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	83.8	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-299	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.3	20	49.3	1180: J-358	20	42.9	769: J-255	TRUE
J-300	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,114.80	2,514.80	20	72.2	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-301	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	56	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-302	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.7	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-303	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	59.4	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-304	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	57	20	49.7	1180: J-358	20	42.9	769: J-255	TRUE
J-305	117: Zone-1	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	64.7	20	50.1	1180: J-358	20	42.9	769: J-255	TRUE
J-306	117: Zone-1	2	TRUE	1,500.00	2,000.00	1,813.82	2,413.82	20	68.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-307	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,978.16	2,478.16	20	72.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-308	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,978.16	2,478.16	20	68.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-309	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	60.6	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-310	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,000.00	2,000.00	20	57.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-311	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,978.16	2,478.16	20	52.8	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-312	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	55.5	20	49.8	978: J-317	20	42.9	769: J-255	TRUE
J-313	118: Zone-1	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	50.3	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-314	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-315	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.3	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-316	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-317	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,381.00	2,881.00	20	43.8	20	46.8	1127: J-346	20	42.9	769: J-255	TRUE
J-318	117: Zone-2	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	46.6	20	45.1	978: J-317	20	42.9	769: J-255	TRUE
J-330	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.9	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-333	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	65.2	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-334	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	79.4	20	45.9	777: J-259	20	42.9	769: J-255	TRUE
J-335	116: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	82.1	20	42.5	769: J-255	20	42.5	769: J-255	TRUE
J-336	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	42.7	769: J-255	20	42.7	769: J-255	TRUE
J-341	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.2	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-342	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	42.7	20	42.8	769: J-255	20	42.8	769: J-255	TRUE
J-346	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.6	20	44.5	978: J-317	20	42.9	769: J-255	TRUE
J-347	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.9	20	44.5	978: J-317	20	42.9	769: J-255	TRUE
J-348	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,896.00	2,396.00	20	79	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-349	118: Zone-3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.7	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-350	118: Zone-3	2	TRUE	1,500.00	2,000.00	2,084.00	2,584.00	20	81.4	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-352	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.3	20	46.5	777: J-259	20	42.9	769: J-255	TRUE
J-353	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.9	20	46.6	777: J-259	20	42.9	769: J-255	TRUE
J-354	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,931.64	2,431.64	20	55.3	20	46	830: J-279	20	42.9	769: J-255	TRUE
J-355	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.6	20	46	777: J-259	20	42.9	769: J-255	TRUE
J-356	117: Zone-2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.3	20	46.2	777: J-259	20	42.9	769: J-255	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone) (psi)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System) (psi)	Is Fire Flow Run Balanced?
J-357	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	82.4	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-358	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.5	20	49.5	1208: J-363	20	42.9	769: J-255	TRUE
J-359	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.8	20	49.6	1180: J-358	20	42.9	769: J-255	TRUE
J-360	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-361	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-362	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-363	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.9	20	48.7	1180: J-358	20	42.9	769: J-255	TRUE
J-364	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.8	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-365	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.3	20	49.6	1180: J-358	20	42.9	769: J-255	TRUE
J-366	115: Zone - 0	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	33.9	20	32.8	811: J-271	20	32.8	811: J-271	TRUE
J-370	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.5	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-371	116: Zone - 1	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.6	20	50.2	1180: J-358	20	42.9	769: J-255	TRUE
J-372	118: Zone - 3	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.5	20	42.9	769: J-255	20	42.9	769: J-255	TRUE
J-374	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.7	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-376	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-377	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.5	20	46.8	978: J-317	20	42.9	769: J-255	TRUE
J-378	117: Zone - 2	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.9	20	46.7	869: J-283	20	42.9	769: J-255	TRUE



WATER UTILITY OF GREATER TONOPAH
WATER MASTER PLAN

DSWA

Ultimate Build-out

OVERSIZED MAP

-Watercad Model Ultimate Buildout

TO REVIEW SEE DOCKET SUPERVISOR

**DOCKET
W-02450A-06-0253**

Reservoir Report

Id	Label	Elevation (ft)	Zone	Outflow (gpm)	Hydraulic Grade (ft)
1276	R-29	1,208.00	116: Zone - 1	16,685.21	1,208.00
1274	R-28	1,231.00	116: Zone - 1	11,678.58	1,231.00
1248	R-21	1,240.00	116: Zone - 1	16,004.01	1,240.00
1265	Silver	1,288.00	117: Zone - 2	11,151.34	1,288.00
689	Balterra-Res	1,288.00	117: Zone - 2	13,186.61	1,288.00
1258	Belmont-ISR	1,281.00	117: Zone - 2	16,810.49	1,281.00
1299	R-31	1,285.00	117: Zone - 2	17,060.66	1,285.00
1267	R-25	1,320.00	117: Zone - 2	15,183	1,320.00
1270	R-26	1,370.00	118: Zone - 3	7,743.04	1,370.00
1093	R-10	1,372.00	118: Zone - 3	16,320.13	1,372.00
1089	R-8	1,365.00	118: Zone - 3	15,046.51	1,365.00
1086	R-7	1,390.00	118: Zone - 3	15,856.26	1,390.00
1278	R-30	1,390.00	118: Zone - 3	13,619.12	1,390.00
1260	R-23	1,380.00	118: Zone - 3	15,370.78	1,380.00
319	Belm-Vill-18	1,487.00	1115: Zone - 4	15,314.37	1,487.00
1272	R-27	1,498.00	1115: Zone - 4	14,697.88	1,498.00
1095	R-11	1,470.00	1115: Zone - 4	15,471.47	1,470.00

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
675	Balterra	1,135.00	<None>	<Collection: 1 item>	172	1,290.00	67.1
120	CAP-Belmont	1,363.00	18: Zone -	<Collection: 1 item>	0	1,514.00	65.4
1058	CAP-west	1,370.00	<None>	<Collection: 0 items>	0	1,484.70	49.6
713	DZ-North	1,170.00	<None>	<Collection: 0 items>	0	1,355.00	80.1
710	DZ-South	1,145.00	<None>	<Collection: 0 items>	0	1,309.90	71.3
121	J-2	1,354.00	18: Zone -	<Collection: 0 items>	0	1,506.60	66
122	J-3	1,335.00	18: Zone -	<Collection: 0 items>	0	1,502.80	72.6
124	J-5	1,341.00	18: Zone -	<Collection: 0 items>	0	1,500.40	69
125	J-6	1,343.00	18: Zone -	<Collection: 0 items>	0	1,498.40	67.2
126	J-7	1,325.00	18: Zone -	<Collection: 0 items>	0	1,496.70	74.3
127	J-8	1,318.00	18: Zone -	<Collection: 0 items>	0	1,492.70	75.6
128	J-9	1,301.00	18: Zone -	<Collection: 0 items>	0	1,489.60	81.6
129	J-10	1,281.00	18: Zone -	<Collection: 0 items>	0	1,484.80	88.2
131	J-12	1,335.00	18: Zone -	<Collection: 0 items>	0	1,498.40	70.7
132	J-13	1,314.00	18: Zone -	<Collection: 0 items>	0	1,495.50	78.5
134	J-15	1,320.00	18: Zone -	<Collection: 0 items>	0	1,495.90	76.1
136	J-17	1,330.00	18: Zone -	<Collection: 0 items>	0	1,496.60	72.1
137	J-18	1,323.00	18: Zone -	<Collection: 0 items>	0	1,497.00	75.3
139	J-20	1,311.00	18: Zone -	<Collection: 0 items>	0	1,497.10	80.5
140	J-21	1,330.00	18: Zone -	<Collection: 0 items>	0	1,503.30	75
141	J-22	1,350.00	18: Zone -	<Collection: 0 items>	0	1,504.30	66.8
142	J-23	1,346.00	18: Zone -	<Collection: 0 items>	0	1,500.50	66.8
143	J-24	1,346.00	18: Zone -	<Collection: 0 items>	0	1,499.30	66.3
144	J-25	1,345.00	18: Zone -	<Collection: 0 items>	0	1,496.70	65.6
145	J-26	1,344.00	18: Zone -	<Collection: 0 items>	0	1,496.30	65.9
153	J-34	1,355.00	18: Zone -	<Collection: 0 items>	0	1,497.70	61.7
155	J-36	1,340.00	18: Zone -	<Collection: 0 items>	0	1,494.80	67
156	J-37	1,330.00	18: Zone -	<Collection: 0 items>	0	1,496.50	72
158	J-39	1,354.00	18: Zone -	<Collection: 0 items>	0	1,501.90	64
160	J-41	1,355.00	18: Zone -	<Collection: 0 items>	0	1,499.40	62.5
163	J-44	1,280.00	18: Zone -	<Collection: 0 items>	0	1,485.10	88.8
166	J-47	1,300.00	18: Zone -	<Collection: 0 items>	0	1,492.90	83.4
167	J-48	1,303.00	18: Zone -	<Collection: 0 items>	0	1,493.60	82.4
169	J-50	1,260.00	17: Zone -	<Collection: 0 items>	0	1,405.20	62.8
171	J-52	1,240.00	17: Zone -	<Collection: 0 items>	0	1,403.10	70.6
172	J-53	1,255.00	17: Zone -	<Collection: 0 items>	0	1,398.10	61.9
174	J-55	1,255.00	17: Zone -	<Collection: 0 items>	0	1,396.10	61
177	J-58	1,265.00	17: Zone -	<Collection: 0 items>	0	1,402.20	59.4
178	J-59	1,282.00	18: Zone -	<Collection: 0 items>	0	1,491.10	90.5
179	J-60	1,295.00	18: Zone -	<Collection: 0 items>	0	1,491.00	84.8
181	J-62	1,281.00	18: Zone -	<Collection: 0 items>	0	1,487.20	89.2
183	J-64	1,290.00	18: Zone -	<Collection: 0 items>	0	1,489.40	86.3
184	J-65	1,290.00	18: Zone -	<Collection: 0 items>	0	1,487.60	85.5
186	J-67	1,310.00	18: Zone -	<Collection: 0 items>	0	1,482.70	74.7
188	J-70	1,255.00	17: Zone -	<Collection: 0 items>	0	1,400.80	63.1
189	J-71	1,243.00	17: Zone -	<Collection: 0 items>	0	1,398.20	67.1
194	J-76	1,243.00	17: Zone -	<Collection: 0 items>	0	1,405.30	70.2
196	J-79	1,245.00	17: Zone -	<Collection: 0 items>	0	1,406.30	69.8
199	J-82	1,192.00	17: Zone -	<Collection: 0 items>	0	1,394.00	87.4
200	J-83	1,197.00	17: Zone -	<Collection: 0 items>	0	1,394.70	85.5
201	J-84	1,240.00	17: Zone -	<Collection: 0 items>	0	1,399.10	68.8
203	J-86	1,210.00	17: Zone -	<Collection: 0 items>	0	1,391.40	78.5
204	J-87	1,235.00	17: Zone -	<Collection: 0 items>	0	1,393.60	68.6
205	J-88	1,191.00	17: Zone -	<Collection: 0 items>	0	1,384.80	83.9
206	J-89	1,196.00	17: Zone -	<Collection: 0 items>	0	1,382.90	80.9
207	J-90	1,200.00	17: Zone -	<Collection: 0 items>	0	1,375.80	76

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
208	J-91	1,201.00	17: Zone -	<Collection: 0 items>	0	1,372.50	74.2
209	J-92	1,227.00	17: Zone -	<Collection: 0 items>	0	1,380.60	66.4
211	J-94	1,184.00	17: Zone -	<Collection: 0 items>	0	1,367.00	79.2
212	J-95	1,179.00	17: Zone -	<Collection: 0 items>	0	1,360.50	78.5
215	J-98	1,141.00	16: Zone -	<Collection: 0 items>	0	1,304.90	70.9
216	J-99	1,133.00	16: Zone -	<Collection: 0 items>	0	1,303.40	73.7
217	J-100	1,123.00	16: Zone -	<Collection: 0 items>	0	1,301.40	77.2
218	J-101	1,110.00	16: Zone -	<Collection: 0 items>	0	1,299.50	82
220	J-103	1,091.00	16: Zone -	<Collection: 1 item>	318	1,288.10	85.3
221	J-104	1,245.00	17: Zone -	<Collection: 0 items>	0	1,394.80	64.8
223	J-106	1,225.00	17: Zone -	<Collection: 0 items>	0	1,389.80	71.3
225	J-108	1,225.00	17: Zone -	<Collection: 0 items>	0	1,382.00	67.9
227	J-110	1,208.00	17: Zone -	<Collection: 0 items>	0	1,379.40	74.2
228	J-111	1,190.00	17: Zone -	<Collection: 0 items>	0	1,377.10	81
229	J-112	1,208.00	17: Zone -	<Collection: 0 items>	0	1,381.20	74.9
230	J-113	1,200.00	17: Zone -	<Collection: 0 items>	0	1,380.60	78.1
232	J-115	1,185.00	17: Zone -	<Collection: 0 items>	0	1,377.80	83.4
233	J-116	1,221.00	17: Zone -	<Collection: 0 items>	0	1,378.70	68.2
234	J-117	1,210.00	17: Zone -	<Collection: 0 items>	0	1,378.60	72.9
236	J-119	1,195.00	17: Zone -	<Collection: 0 items>	0	1,374.40	77.6
237	J-120	1,164.00	16: Zone -	<Collection: 0 items>	0	1,295.70	57
239	J-123	1,164.00	16: Zone -	<Collection: 1 item>	318	1,294.30	56.4
240	J-124	1,160.00	16: Zone -	<Collection: 1 item>	242	1,294.30	58.1
242	J-126	1,179.00	17: Zone -	<Collection: 0 items>	0	1,369.40	82.4
243	J-127	1,184.00	17: Zone -	<Collection: 0 items>	0	1,369.40	80.2
245	J-129	1,163.00	16: Zone -	<Collection: 0 items>	0	1,296.90	57.9
247	J-131	1,245.00	17: Zone -	<Collection: 0 items>	0	1,397.00	65.8
251	J-135	1,105.00	16: Zone -	<Collection: 0 items>	0	1,298.60	83.8
252	J-136	1,110.00	16: Zone -	<Collection: 1 item>	318	1,297.40	81.1
253	J-137	1,100.00	16: Zone -	<Collection: 1 item>	318	1,293.40	83.7
254	J-138	1,090.00	16: Zone -	<Collection: 1 item>	318	1,290.10	86.6
256	J-140	1,110.00	16: Zone -	<Collection: 0 items>	0	1,292.30	78.9
258	J-143	1,083.00	16: Zone -	<Collection: 1 item>	318	1,288.80	89.1
259	J-144	1,105.00	16: Zone -	<Collection: 0 items>	0	1,298.60	83.7
261	J-146	1,085.00	16: Zone -	<Collection: 1 item>	318	1,294.50	90.6
262	J-147	1,085.00	16: Zone -	<Collection: 1 item>	159	1,292.20	89.6
263	J-148	1,100.00	16: Zone -	<Collection: 1 item>	260	1,291.30	82.8
264	J-149	1,092.00	16: Zone -	<Collection: 1 item>	101	1,289.30	85.4
275	J-161	1,181.00	17: Zone -	<Collection: 0 items>	0	1,366.80	80.4
276	J-162	1,256.00	17: Zone -	<Collection: 0 items>	0	1,404.20	64.1
278	J-164	1,110.00	16: Zone -	<Collection: 0 items>	0	1,291.50	78.5
279	J-165	1,087.00	16: Zone -	<Collection: 1 item>	318	1,289.60	87.7
280	J-166	1,285.00	18: Zone -	<Collection: 0 items>	0	1,490.80	89
281	J-167	1,283.00	18: Zone -	<Collection: 0 items>	0	1,482.20	86.2
282	J-168	1,165.00	16: Zone -	<Collection: 1 item>	318	1,295.30	56.4
283	J-169	1,179.00	17: Zone -	<Collection: 0 items>	0	1,376.70	85.5
284	J-170	1,179.00	17: Zone -	<Collection: 0 items>	0	1,376.80	85.6
285	J-171	1,170.00	17: Zone -	<Collection: 1 item>	159	1,295.20	54.2
286	J-172	1,230.00	17: Zone -	<Collection: 0 items>	0	1,405.40	75.9
287	J-173	1,133.00	16: Zone -	<Collection: 0 items>	0	1,303.20	73.6
288	J-174	1,160.00	16: Zone -	<Collection: 1 item>	159	1,306.90	63.6
289	J-175	1,160.00	16: Zone -	<Collection: 0 items>	0	1,306.30	63.3
290	J-176	1,320.00	18: Zone -	<Collection: 0 items>	0	1,493.00	74.9
291	J-177	1,245.00	17: Zone -	<Collection: 0 items>	0	1,392.60	63.9
292	J-178	1,241.00	17: Zone -	<Collection: 0 items>	0	1,393.30	65.9
293	J-180	1,221.00	17: Zone -	<Collection: 0 items>	0	1,391.50	73.8

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
295	J-182	1,218.00	17: Zone -	<Collection: 0 items>	0	1,376.90	68.8
296	J-183	1,205.00	17: Zone -	<Collection: 0 items>	0	1,379.50	75.5
297	J-184	1,225.00	17: Zone -	<Collection: 0 items>	0	1,396.50	74.2
298	J-185	1,247.00	17: Zone -	<Collection: 0 items>	0	1,404.70	68.2
299	J-186	1,240.00	17: Zone -	<Collection: 0 items>	0	1,396.10	67.5
300	J-187	1,360.00	18: Zone -	<Collection: 0 items>	0	1,508.70	64.3
301	J-188	1,260.00	17: Zone -	<Collection: 0 items>	0	1,402.20	61.5
302	J-189	1,282.00	18: Zone -	<Collection: 0 items>	0	1,479.30	85.4
303	J-190	1,335.00	18: Zone -	<Collection: 0 items>	0	1,495.10	69.2
304	J-191	1,270.00	17: Zone -	<Collection: 0 items>	0	1,464.40	84.1
305	J-192	1,210.00	17: Zone -	<Collection: 1 item>	159	1,384.20	75.4
306	J-193	1,184.00	17: Zone -	<Collection: 1 item>	159	1,378.80	84.3
307	J-194	1,135.00	16: Zone -	<Collection: 0 items>	0	1,304.20	73.2
308	J-195	1,130.00	16: Zone -	<Collection: 1 item>	159	1,300.00	73.5
309	J-196	1,112.00	16: Zone -	<Collection: 1 item>	159	1,297.30	80.2
310	J-197	1,126.00	16: Zone -	<Collection: 0 items>	0	1,299.30	75
311	J-198	1,140.00	16: Zone -	<Collection: 0 items>	0	1,301.50	69.9
312	J-199	1,145.00	16: Zone -	<Collection: 1 item>	159	1,301.90	67.9
313	J-200	1,120.00	16: Zone -	<Collection: 0 items>	0	1,299.30	77.6
314	J-201	1,200.00	17: Zone -	<Collection: 0 items>	0	1,390.30	82.3
315	J-202	1,130.00	16: Zone -	<Collection: 0 items>	0	1,303.50	75.1
316	J-203	1,225.00	17: Zone -	<Collection: 0 items>	0	1,393.40	72.9
317	J-204	1,268.00	17: Zone -	<Collection: 0 items>	0	1,399.40	56.8
318	J-205	1,196.00	17: Zone -	<Collection: 1 item>	159	1,380.80	79.9
650	J-212	1,131.00	<None>	<Collection: 1 item>	222	1,290.60	69.1
652	J-213	1,128.00	<None>	<Collection: 1 item>	222	1,290.40	70.3
654	J-214	1,126.00	<None>	<Collection: 1 item>	394	1,290.30	71.1
656	J-215	1,105.00	<None>	<Collection: 1 item>	394	1,287.90	79.1
658	J-216	1,079.00	<None>	<Collection: 1 item>	322	1,286.70	89.9
660	J-217	1,077.00	<None>	<Collection: 1 item>	222	1,285.80	90.3
662	J-218	1,058.00	<None>	<Collection: 1 item>	322	1,195.50	59.5
664	J-219	1,059.00	<None>	<Collection: 1 item>	322	1,194.60	58.7
666	J-220	1,030.00	<None>	<Collection: 1 item>	322	1,194.90	71.4
668	J-221	1,100.00	<None>	<Collection: 1 item>	331	1,287.30	81
670	J-222	1,130.00	<None>	<Collection: 1 item>	172	1,290.00	69.2
677	J-225	1,135.00	<None>	<Collection: 1 item>	331	1,289.90	67
679	J-226	1,107.00	<None>	<Collection: 1 item>	431	1,289.10	78.8
681	J-227	1,116.00	<None>	<Collection: 1 item>	209	1,290.20	75.4
683	J-228	1,144.00	<None>	<Collection: 1 item>	318	1,291.10	63.6
691	J-229	1,066.00	<None>	<Collection: 1 item>	101	1,194.30	55.5
693	J-230	1,177.00	<None>	<Collection: 1 item>	450	1,392.20	93.1
697	J-232	1,132.00	<None>	<Collection: 1 item>	450	1,299.10	72.3
699	J-233	1,092.00	<None>	<Collection: 1 item>	609	1,299.30	89.7
701	J-234	1,098.00	<None>	<Collection: 1 item>	450	1,298.30	86.7
704	J-235	1,264.00	<None>	<Collection: 0 items>	0	1,407.50	62.1
725	J-238	1,070.00	<None>	<Collection: 1 item>	318	1,285.40	93.2
727	J-239	1,052.00	<None>	<Collection: 1 item>	322	1,200.40	64.2
729	J-240	1,035.00	<None>	<Collection: 1 item>	322	1,196.70	70
732	J-241	1,000.00	<None>	<Collection: 1 item>	161.2	1,194.20	84
734	J-242	1,023.00	<None>	<Collection: 1 item>	318	1,193.10	73.6
736	J-243	1,022.00	<None>	<Collection: 1 item>	318	1,194.90	74.8
738	J-244	1,071.00	<None>	<Collection: 1 item>	318	1,289.00	94.3
742	J-245	1,034.00	<None>	<Collection: 1 item>	318	1,194.50	69.5
746	J-246	1,000.00	<None>	<Collection: 1 item>	318	1,193.90	83.9
751	J-247	1,085.00	<None>	<Collection: 1 item>	159	1,289.40	88.5
754	J-248	1,085.00	<None>	<Collection: 1 item>	322	1,287.40	87.6

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
757	J-249	1,180.00	<None>	<Collection: 1 item>	318	1,383.60	88.1
759	J-250	1,210.00	<None>	<Collection: 1 item>	318	1,379.70	73.4
761	J-251	1,236.00	<None>	<Collection: 1 item>	159	1,386.40	65.1
763	J-252	1,200.00	<None>	<Collection: 1 item>	318	1,388.20	81.4
765	J-253	1,228.00	<None>	<Collection: 1 item>	318	1,390.70	70.4
767	J-254	1,256.00	<None>	<Collection: 1 item>	318	1,395.50	60.3
769	J-255	1,270.00	<None>	<Collection: 1 item>	159	1,393.20	53.3
771	J-256	1,240.00	<None>	<Collection: 1 item>	159	1,392.00	65.8
773	J-257	1,216.00	<None>	<Collection: 1 item>	318	1,391.20	75.8
775	J-258	1,190.00	<None>	<Collection: 1 item>	477	1,389.80	86.4
777	J-259	1,170.00	<None>	<Collection: 1 item>	331	1,288.40	51.2
783	J-260	1,178.00	<None>	<Collection: 1 item>	159	1,390.40	91.9
785	J-261	1,170.00	<None>	<Collection: 1 item>	318	1,389.90	95.2
787	J-262	1,196.00	<None>	<Collection: 1 item>	159	1,390.40	84.1
794	J-265	1,142.00	<None>	<Collection: 1 item>	318	1,287.70	63
797	J-266	1,128.00	<None>	<Collection: 1 item>	318	1,286.80	68.7
799	J-267	1,110.00	<None>	<Collection: 1 item>	159	1,286.10	76.2
801	J-268	1,088.00	<None>	<Collection: 1 item>	318	1,285.90	85.6
804	J-269	1,110.00	<None>	<Collection: 1 item>	159	1,286.60	76.4
809	J-270	1,160.00	<None>	<Collection: 1 item>	318	1,290.20	56.3
811	J-271	1,002.00	<None>	<Collection: 1 item>	318	1,192.60	82.5
813	J-272	1,023.00	<None>	<Collection: 1 item>	318	1,192.90	73.5
816	J-274	1,070.00	<None>	<Collection: 1 item>	101	1,289.20	94.8
818	J-275	1,061.00	<None>	<Collection: 1 item>	101	1,289.20	98.7
820	J-276	1,072.00	<None>	<Collection: 1 item>	101	1,289.20	94
823	J-277	1,045.00	<None>	<Collection: 1 item>	101	1,194.30	64.6
826	J-278	1,164.00	<None>	<Collection: 1 item>	159	1,290.00	54.5
830	J-279	1,162.00	<None>	<Collection: 1 item>	318	1,286.90	54
832	J-280	1,093.00	<None>	<Collection: 1 item>	318	1,296.60	88.1
835	J-281	1,270.00	<None>	<Collection: 0 items>	0	1,407.70	59.6
838	J-282	1,270.00	<None>	<Collection: 0 items>	0	1,474.20	88.4
869	J-283	1,170.00	<None>	<Collection: 0 items>	0	1,295.20	54.2
872	J-284	1,170.00	<None>	<Collection: 0 items>	0	1,356.20	80.6
875	J-285	1,170.00	<None>	<Collection: 0 items>	0	1,306.90	59.2
882	J-286	1,270.00	<None>	<Collection: 0 items>	0	1,406.60	59.1
887	J-287	1,193.00	<None>	<Collection: 1 item>	318	1,377.70	79.9
889	J-288	1,182.00	<None>	<Collection: 1 item>	318	1,375.10	83.5
891	J-289	1,195.00	<None>	<Collection: 1 item>	318	1,377.30	78.9
893	J-290	1,199.00	<None>	<Collection: 1 item>	318	1,379.70	78.2
896	J-291	1,152.00	<None>	<Collection: 1 item>	318	1,293.60	61.3
898	J-292	1,160.00	<None>	<Collection: 1 item>	318	1,292.90	57.5
900	J-293	1,170.00	<None>	<Collection: 1 item>	159	1,292.90	53.2
906	J-294	1,170.00	<None>	<Collection: 1 item>	159	1,290.10	52
908	J-295	1,170.00	<None>	<Collection: 1 item>	159	1,295.70	54.4
910	J-296	1,170.00	<None>	<Collection: 1 item>	318	1,377.30	89.7
912	J-297	1,170.00	<None>	<Collection: 1 item>	159	1,380.60	91.1
918	J-298	1,170.00	<None>	<Collection: 1 item>	318	1,378.50	90.2
922	J-299	1,050.00	<None>	<Collection: 1 item>	318	1,194.40	62.5
925	J-300	1,058.00	<None>	<Collection: 1 item>	260	1,194.40	59
929	J-301	1,078.00	<None>	<Collection: 1 item>	318	1,289.40	91.5
932	J-302	1,075.00	<None>	<Collection: 1 item>	318	1,288.70	92.5
934	J-303	1,074.00	<None>	<Collection: 1 item>	318	1,288.70	92.9
937	J-304	1,060.00	<None>	<Collection: 1 item>	318	1,194.30	58.1
940	J-305	1,059.00	<None>	<Collection: 1 item>	318	1,194.30	58.5
943	J-306	1,100.00	<None>	<Collection: 1 item>	209	1,288.70	81.6
945	J-307	1,112.00	<None>	<Collection: 1 item>	242	1,292.00	77.9

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
947	J-308	1,120.00	<None>	<Collection: 1 item>	242	1,294.30	75.4
949	J-309	1,136.00	<None>	<Collection: 1 item>	318	1,301.80	71.7
951	J-310	1,148.00	<None>	<Collection: 0 items>	0	1,304.00	67.5
958	J-311	1,158.00	<None>	<Collection: 1 item>	242	1,293.10	58.5
962	J-312	1,072.00	<None>	<Collection: 1 item>	318	1,289.10	93.9
965	J-313	1,108.00	<None>	<Collection: 1 item>	318	1,289.10	78.3
968	J-314	1,100.00	<None>	<Collection: 0 items>	0	1,291.40	82.8
970	J-315	1,090.00	<None>	<Collection: 0 items>	0	1,289.60	86.4
974	J-316	1,100.00	<None>	<Collection: 0 items>	0	1,291.10	82.7
978	J-317	1,170.00	<None>	<Collection: 1 item>	450	1,299.40	56
981	J-318	1,170.00	<None>	<Collection: 1 item>	318	1,299.60	56.1
992	J-319	1,270.00	<None>	<Collection: 0 items>	0	1,477.60	89.8
1019	J-322	1,270.00	<None>	<Collection: 0 items>	0	1,412.80	61.8
1023	J-323	1,270.00	<None>	<Collection: 0 items>	0	1,409.60	60.4
1030	J-324	1,270.00	<None>	<Collection: 0 items>	0	1,408.90	60.1
1033	J-325	1,258.00	<None>	<Collection: 0 items>	0	1,408.00	64.9
1042	J-327	1,270.00	<None>	<Collection: 0 items>	0	1,408.50	59.9
1046	J-328	1,311.00	<None>	<Collection: 0 items>	0	1,491.60	78.1
1049	J-329	1,308.00	<None>	<Collection: 0 items>	0	1,488.70	78.2
1053	J-330	1,170.00	<None>	<Collection: 0 items>	0	1,306.10	58.9
1062	J-332	1,072.00	<None>	<Collection: 1 item>	322	1,287.40	93.2
1065	J-333	1,129.00	<None>	<Collection: 1 item>	172	1,289.00	69.2
1067	J-334	1,160.00	<None>	<Collection: 1 item>	172	1,288.00	55.4
1071	J-335	1,170.00	<None>	<Collection: 0 items>	0	1,389.10	94.8
1074	J-336	1,170.00	<None>	<Collection: 1 item>	318	1,384.80	92.9
1077	J-337	1,270.00	<None>	<Collection: 0 items>	0	1,472.60	87.7
1081	J-338	1,300.00	<None>	<Collection: 0 items>	0	1,490.50	82.4
250	J-V1-I	1,114.00	16: Zone -	<Collection: 1 item>	606	1,299.40	80.2
249	J-V1-II	1,133.00	16: Zone -	<Collection: 1 item>	606	1,299.50	72.1
246	J-V2-I	1,161.00	16: Zone -	<Collection: 1 item>	319	1,296.10	58.5
214	J-V2-II	1,160.00	16: Zone -	<Collection: 1 item>	319	1,307.70	63.9
213	J-V3-I-Z1	1,163.00	16: Zone -	<Collection: 1 item>	67	1,356.20	83.6
248	J-V3-I-Z2	1,190.00	17: Zone -	<Collection: 1 item>	606	1,367.00	76.6
244	J-V4-II-Z2	1,186.00	17: Zone -	<Collection: 1 item>	646	1,369.40	79.4
241	J-V4-I-Z1	1,165.00	16: Zone -	<Collection: 1 item>	323	1,297.90	57.5
238	J-V4-I-Z2	1,180.00	17: Zone -	<Collection: 1 item>	646	1,376.50	85
224	J-V5-I	1,217.00	17: Zone -	<Collection: 1 item>	472	1,383.40	72
231	J-V5-II	1,195.00	17: Zone -	<Collection: 1 item>	472	1,378.70	79.5
226	J-V6-I	1,227.00	18: Zone -	<Collection: 1 item>	446	1,380.70	66.5
235	J-V6-II	1,203.00	17: Zone -	<Collection: 1 item>	446	1,375.80	74.8
268	J-V7-I	1,231.00	17: Zone -	<Collection: 1 item>	679	1,390.50	69
210	J-V7-II	1,220.00	17: Zone -	<Collection: 1 item>	339.5	1,376.20	67.6
294	J-V7-III	1,220.00	17: Zone -	<Collection: 1 item>	339.5	1,377.70	68.2
190	J-V8-I	1,245.00	17: Zone -	<Collection: 1 item>	564	1,401.00	67.5
202	J-V8-II	1,223.00	17: Zone -	<Collection: 1 item>	564	1,393.40	73.7
192	J-V9-I	1,240.00	17: Zone -	<Collection: 1 item>	651	1,398.90	68.8
269	J-V9-II	1,225.00	17: Zone -	<Collection: 1 item>	651	1,394.70	73.4
271	J-V10-I-Z2	1,258.00	17: Zone -	<Collection: 1 item>	756	1,401.20	62
187	J-V10-I-Z3	1,282.00	18: Zone -	<Collection: 1 item>	84	1,486.00	88.2
267	J-V11-III-Z2	1,240.00	17: Zone -	<Collection: 1 item>	670	1,388.70	64.3
175	J-V11-II-Z2	1,247.00	17: Zone -	<Collection: 1 item>	335	1,396.00	64.5
182	J-V11-IV-Z2	1,264.00	17: Zone -	<Collection: 1 item>	335	1,406.00	61.4
266	J-V11-I-Z2	1,237.00	17: Zone -	<Collection: 1 item>	670	1,382.90	63.1
168	J-V11-I-Z3	1,300.00	18: Zone -	<Collection: 1 item>	223	1,494.10	84
173	J-V12-I	1,261.00	17: Zone -	<Collection: 1 item>	435	1,396.50	58.6
222	J-V12-II	1,227.00	17: Zone -	<Collection: 1 item>	435	1,393.30	71.9

Junction Nodes- ADD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
273	J-V13-III-Z2	1,263.00	17: Zone -	<Collection: 1 item>	557	1,399.30	59
176	J-V13-II-Z2	1,260.00	17: Zone -	<Collection: 1 item>	557	1,406.50	63.4
170	J-V13-I-Z2	1,237.00	17: Zone -	<Collection: 1 item>	557	1,402.80	71.8
162	J-V13-I-Z3	1,285.00	18: Zone -	<Collection: 1 item>	418	1,485.50	86.7
180	J-V14-II-Z3	1,282.00	18: Zone -	<Collection: 1 item>	367	1,485.90	88.2
272	J-V14-I-Z2	1,264.00	17: Zone -	<Collection: 1 item>	82	1,402.40	59.9
165	J-V14-I-Z3	1,289.00	18: Zone -	<Collection: 1 item>	367	1,491.30	87.5
277	J-V15-III-Z2	1,260.00	17: Zone -	<Collection: 1 item>	532	1,408.90	64.4
193	J-V15-III-Z3	1,271.00	18: Zone -	<Collection: 1 item>	532	1,462.70	83
191	J-V15-II-Z2	1,245.00	17: Zone -	<Collection: 1 item>	532	1,402.90	68.3
152	J-V15-II-Z3	1,290.00	18: Zone -	<Collection: 1 item>	532	1,481.00	82.7
270	J-V15-I-Z2	1,269.00	17: Zone -	<Collection: 1 item>	532	1,471.30	87.5
185	J-V15-I-Z3	1,300.00	18: Zone -	<Collection: 1 item>	532	1,484.70	79.9
161	J-V16-I	1,319.00	18: Zone -	<Collection: 1 item>	572	1,495.90	76.6
159	J-V16-II	1,341.00	18: Zone -	<Collection: 1 item>	572	1,497.60	67.7
151	J-V16-III	1,310.00	18: Zone -	<Collection: 1 item>	572	1,491.80	78.6
135	J-V17-I	1,320.00	18: Zone -	<Collection: 1 item>	613	1,495.90	76.1
138	J-V17-II	1,315.00	18: Zone -	<Collection: 1 item>	613	1,496.50	78.5
164	J-V17-III	1,280.00	18: Zone -	<Collection: 1 item>	613	1,487.80	89.9
123	J-V18-I	1,340.00	18: Zone -	<Collection: 1 item>	472	1,500.90	69.6
130	J-V18-II	1,352.00	18: Zone -	<Collection: 1 item>	472	1,505.30	66.3
133	J-V18-III	1,300.00	18: Zone -	<Collection: 1 item>	472	1,492.80	83.4
157	J-V19-I	1,371.00	18: Zone -	<Collection: 1 item>	672	1,504.70	57.8
154	J-V19-II	1,360.00	18: Zone -	<Collection: 1 item>	672	1,499.90	60.5
150	J-V20-II-Z3	1,320.00	18: Zone -	<Collection: 1 item>	600	1,493.90	75.3
274	J-V20-I-Z2	1,256.00	17: Zone -	<Collection: 1 item>	300	1,408.40	65.9
146	J-V20-I-Z3	1,329.00	18: Zone -	<Collection: 1 item>	600	1,495.80	72.2
148	J-V21-II-Z3	1,318.00	18: Zone -	<Collection: 1 item>	439	1,491.30	75
149	J-V21-I-Z2	1,270.00	17: Zone -	<Collection: 1 item>	219	1,475.60	88.9
147	J-V21-I-Z3	1,335.00	18: Zone -	<Collection: 1 item>	439	1,492.60	68.2
197	J-V22-I	1,269.00	17: Zone -	<Collection: 1 item>	549	1,473.00	88.3
195	J-V22-II	1,255.00	17: Zone -	<Collection: 1 item>	549	1,405.40	65.1
198	J-V22-III	1,193.00	17: Zone -	<Collection: 1 item>	549	1,394.80	87.3
219	J-V23-I	1,098.00	16: Zone -	<Collection: 1 item>	276	1,296.70	86
260	J-V24-I	1,109.00	16: Zone -	<Collection: 1 item>	780	1,297.60	81.6
265	J-V24-II	1,100.00	16: Zone -	<Collection: 1 item>	780	1,291.10	82.7
255	J-V25-I	1,110.00	16: Zone -	<Collection: 1 item>	1,100.00	1,292.00	78.7
257	J-V25-II	1,086.00	16: Zone -	<Collection: 1 item>	1,100.00	1,288.40	87.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
1042	J-327	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,364.30	40.8
835	J-281	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,364.60	40.9
1023	J-323	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,364.90	41.1
1019	J-322	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,365.00	41.1
1030	J-324	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,365.40	41.3
882	J-286	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,365.60	41.4
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	318.00	1,370.70	43.6
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	636	1,371.00	43.7
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,372.00	44.1
277	J-V15-III-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	532.00	1,365.00	45.4
157	J-V19-I	1,371.00	1115: Zone - 4	<Collection: 1 item>	672.00	1,476.90	45.8
1033	J-325	1,258.00	118: Zone - 3	<Collection: 0 items>	0	1,365.40	46.5
274	J-V20-I-Z2	1,256.00	118: Zone - 3	<Collection: 1 item>	300.00	1,364.90	47.1
271	J-V10-I-Z2	1,258.00	118: Zone - 3	<Collection: 1 item>	756	1,367.00	47.2
195	J-V22-II	1,255.00	118: Zone - 3	<Collection: 1 item>	549	1,364.10	47.2
276	J-162	1,256.00	118: Zone - 3	<Collection: 0 items>	0	1,365.90	47.6
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.00	48
317	J-204	1,268.00	118: Zone - 3	<Collection: 0 items>	0	1,379.30	48.2
182	J-V11-IV-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	335	1,375.40	48.2
704	J-235	1,264.00	118: Zone - 3	<Collection: 0 items>	0	1,375.40	48.2
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,281.70	48.3
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,281.70	48.3
154	J-V19-II	1,360.00	1115: Zone - 4	<Collection: 1 item>	672	1,472.20	48.5
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	318	1,114.30	48.6
301	J-188	1,260.00	118: Zone - 3	<Collection: 0 items>	0	1,372.50	48.7
272	J-V14-I-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	82	1,377.20	49
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	450	1,283.60	49.1
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.60	49.1
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	479	1,114.30	49.4
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0	1,114.50	49.5
188	J-70	1,255.00	118: Zone - 3	<Collection: 0 items>	0	1,369.80	49.7
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	318	1,115.10	49.8
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	636.00	1,371.60	50
153	J-34	1,355.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.90	50.1
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	331	1,286.00	50.2
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	318	1,208.00	50.2
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	636.00	1,284.00	50.2
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	323	1,281.40	50.3
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	318	1,281.70	50.5
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0	1,281.70	50.9
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,283.80	51
298	J-185	1,247.00	118: Zone - 3	<Collection: 0 items>	0	1,365.00	51.1
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0	1,281.20	51.1
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	318	1,282.60	51.3
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,209.10	51.5
196	J-79	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,364.20	51.6
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	319.00	1,281.10	51.9
191	J-V15-II-Z2	1,245.00	118: Zone - 3	<Collection: 1 item>	532	1,365.90	52.3
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	319	1,281.00	52.4
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	159	1,281.00	52.4
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	52.4
273	J-V13-III-Z2	1,263.00	118: Zone - 3	<Collection: 1 item>	875	1,384.10	52.4
177	J-58	1,265.00	118: Zone - 3	<Collection: 0 items>	0	1,386.20	52.4
173	J-V12-I	1,261.00	118: Zone - 3	<Collection: 1 item>	435	1,382.40	52.5
160	J-41	1,355.00	1115: Zone - 4	<Collection: 0 items>	0	1,476.40	52.5
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,211.50	52.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
194	J-76	1,243.00	118: Zone - 3	<Collection: 0 items>	0	1,364.90	52.7
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,291.90	52.8
190	J-V8-I	1,245.00	118: Zone - 3	<Collection: 1 item>	564	1,367.10	52.8
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	242	1,282.60	53
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0	1,209.00	53.2
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	318	1,210.00	53.2
158	J-39	1,354.00	1115: Zone - 4	<Collection: 0 items>	0	1,477.00	53.2
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	100	1,285.10	53.3
174	J-55	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,378.20	53.3
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	159.00	1,208.30	53.4
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	322	1,209.00	53.6
120	CAP-Belmont	1,363.00	1115: Zone - 4	<Collection: 1 item>	0.00	1,487.00	53.6
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	1,100.00	1,210.80	54
192	J-V9-I	1,240.00	118: Zone - 3	<Collection: 1 item>	651	1,364.90	54
201	J-84	1,240.00	118: Zone - 3	<Collection: 0 items>	0.00	1,365.50	54.3
144	J-25	1,345.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.50	54.3
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	242	1,283.50	54.3
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	172	1,285.70	54.4
145	J-26	1,344.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.00	54.5
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,296.70	54.8
189	J-71	1,243.00	118: Zone - 3	<Collection: 0 items>	0	1,369.90	54.9
247	J-131	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,372.20	55
299	J-186	1,240.00	118: Zone - 3	<Collection: 0 items>	0	1,367.50	55.2
143	J-24	1,346.00	1115: Zone - 4	<Collection: 0 items>	0	1,474.20	55.5
175	J-V11-II-Z2	1,247.00	118: Zone - 3	<Collection: 1 item>	335	1,375.80	55.7
169	J-50	1,260.00	118: Zone - 3	<Collection: 0 items>	0	1,388.90	55.8
300	J-187	1,360.00	1115: Zone - 4	<Collection: 0 items>	0	1,488.90	55.8
176	J-V13-II-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	557	1,389.10	55.9
142	J-23	1,346.00	1115: Zone - 4	<Collection: 0 items>	0	1,475.50	56
172	J-53	1,255.00	118: Zone - 3	<Collection: 0 items>	0	1,384.70	56.1
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	159	1,369.80	56.1
141	J-22	1,350.00	1115: Zone - 4	<Collection: 0 items>	0	1,480.00	56.3
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	318	1,220.10	56.3
121	J-2	1,354.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,484.20	56.3
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	159	1,294.30	56.4
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	56.7
267	J-V11-III-Z2	1,240.00	118: Zone - 3	<Collection: 1 item>	670.00	1,371.80	57
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	322	1,211.50	57.3
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	318	1,210.50	57.3
159	J-V16-II	1,341.00	1115: Zone - 4	<Collection: 1 item>	572.00	1,473.80	57.5
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	57.5
155	J-36	1,340.00	1115: Zone - 4	<Collection: 0 items>	0	1,473.10	57.6
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0	1,285.30	57.7
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0	1,221.50	57.7
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	159	1,370.20	58.1
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	159	1,304.20	58.1
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	318	1,294.50	58.2
147	J-V21-I-Z3	1,335.00	1115: Zone - 4	<Collection: 1 item>	439	1,469.50	58.2
286	J-172	1,230.00	118: Zone - 3	<Collection: 0 items>	0	1,364.60	58.2
204	J-87	1,235.00	118: Zone - 3	<Collection: 0 items>	0	1,369.80	58.3
710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	58.9
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	318	1,227.10	58.9
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	318	1,208.60	59.1
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	318.00	1,208.10	59.3
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	318	1,220.20	59.3
291	J-177	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,382.50	59.5

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	159.00	1,282.60	59.5
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0	1,286.80	59.6
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	59.8
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	318.00	1,298.40	59.9
268	J-V7-I	1,231.00	118: Zone - 3	<Collection: 1 item>	679	1,370.10	60.2
269	J-V9-II	1,225.00	118: Zone - 3	<Collection: 1 item>	651	1,364.20	60.2
130	J-V18-II	1,352.00	1115: Zone - 4	<Collection: 1 item>	472	1,491.30	60.3
221	J-104	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,384.80	60.5
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	60.6
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	101	1,232.20	60.6
266	J-V11-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	670	1,377.20	60.7
303	J-190	1,335.00	1115: Zone - 4	<Collection: 0 items>	0	1,475.30	60.7
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	318	1,215.50	60.8
146	J-V20-I-Z3	1,329.00	1115: Zone - 4	<Collection: 1 item>	600	1,469.90	61
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0	1,281.00	61
297	J-184	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,366.20	61.1
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,231.30	61.1
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0	1,286.70	61.3
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	636	1,370.60	61.7
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	318	1,286.80	61.8
292	J-178	1,241.00	118: Zone - 3	<Collection: 0 items>	0	1,384.10	61.9
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	318	1,285.30	62
156	J-37	1,330.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,473.60	62.1
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	101.00	1,234.00	62.3
123	J-V18-I	1,340.00	1115: Zone - 4	<Collection: 1 item>	472.00	1,484.20	62.4
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	318	1,280.60	62.6
202	J-V8-II	1,223.00	118: Zone - 3	<Collection: 1 item>	564	1,369.20	63.3
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0	1,281.30	63.3
124	J-5	1,341.00	1115: Zone - 4	<Collection: 0 items>	0	1,487.70	63.5
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	318	1,220.90	63.6
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	318	1,298.90	63.6
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	218	1,285.10	63.6
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0.00	1,232.40	63.8
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	606	1,280.80	63.9
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,280.80	64
122	J-3	1,335.00	1115: Zone - 4	<Collection: 0 items>	0	1,483.00	64
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.00	64
125	J-6	1,343.00	1115: Zone - 4	<Collection: 0 items>	0	1,492.20	64.5
209	J-92	1,227.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.50	64.7
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	322	1,208.50	64.7
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,319.80	64.8
290	J-176	1,320.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.90	64.9
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0.00	1,227.90	64.9
171	J-52	1,240.00	118: Zone - 3	<Collection: 0 items>	0	1,389.90	64.9
150	J-V20-II-Z3	1,320.00	1115: Zone - 4	<Collection: 1 item>	600	1,470.00	64.9
293	J-180	1,221.00	118: Zone - 3	<Collection: 0 items>	0	1,371.10	64.9
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	636	1,210.20	65
226	J-V6-I	1,227.00	118: Zone - 3	<Collection: 1 item>	446	1,377.60	65.2
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,280.80	65.2
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	322	1,209.10	65.4
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	636.00	1,221.50	65.5
170	J-V13-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	557	1,388.50	65.5
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	450	1,283.50	65.5
148	J-V21-II-Z3	1,318.00	1115: Zone - 4	<Collection: 1 item>	439	1,469.60	65.6
140	J-21	1,330.00	1115: Zone - 4	<Collection: 0 items>	0	1,481.90	65.7
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	331.00	1,287.70	66.1

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	318.00	1,368.80	66.1
675	Balterra	1,135.00	117: Zone - 2	<Collection: 1 item>	172	1,288.00	66.2
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	66.2
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0	1,208.60	66.4
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	222	1,231.00	66.6
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	477	1,284.90	67
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0	1,281.40	67.2
225	J-108	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,380.70	67.3
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	318	1,206.40	67.7
233	J-116	1,221.00	118: Zone - 3	<Collection: 0 items>	0	1,377.70	67.8
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	636.00	1,285.00	67.9
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	540	1,288.10	68
136	J-17	1,330.00	1115: Zone - 4	<Collection: 0 items>	0	1,487.20	68
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	339.5	1,377.30	68
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0	1,280.50	68.2
161	J-V16-I	1,319.00	1115: Zone - 4	<Collection: 1 item>	572	1,476.90	68.3
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	636	1,217.00	68.4
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	172	1,287.10	68.4
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	481	1,210.30	68.5
1046	J-328	1,311.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.90	68.8
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	172	1,289.30	68.9
295	J-182	1,218.00	118: Zone - 3	<Collection: 0 items>	0	1,377.50	69
223	J-106	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,384.90	69.2
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	339.5	1,379.90	69.2
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	318.00	1,370.00	69.2
151	J-V16-III	1,310.00	1115: Zone - 4	<Collection: 1 item>	572.00	1,470.00	69.2
203	J-86	1,210.00	118: Zone - 3	<Collection: 0 items>	0	1,370.20	69.3
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0	1,280.30	69.3
222	J-V12-II	1,227.00	118: Zone - 3	<Collection: 1 item>	435	1,387.40	69.4
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	222	1,288.50	69.4
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,222.80	69.6
137	J-18	1,323.00	1115: Zone - 4	<Collection: 0 items>	0	1,484.10	69.7
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	242	1,281.30	69.8
186	J-67	1,310.00	1115: Zone - 4	<Collection: 0 items>	0	1,471.40	69.8
1049	J-329	1,308.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.60	69.9
131	J-12	1,335.00	1115: Zone - 4	<Collection: 0 items>	0	1,497.90	70.5
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	394	1,289.00	70.5
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	101.00	1,236.20	71
316	J-203	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,389.70	71.2
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	606	1,279.90	71.8
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0.00	1,285.00	71.8
138	J-V17-II	1,315.00	1115: Zone - 4	<Collection: 1 item>	613	1,481.40	72
309	J-196	1,112.00	117: Zone - 2	<Collection: 1 item>	159.00	1,279.30	72.4
224	J-V5-I	1,217.00	118: Zone - 3	<Collection: 1 item>	472	1,384.50	72.5
234	J-117	1,210.00	118: Zone - 3	<Collection: 0 items>	0	1,378.30	72.8
135	J-V17-I	1,320.00	1115: Zone - 4	<Collection: 1 item>	613	1,488.40	72.8
255	J-V25-I	1,110.00	117: Zone - 2	<Collection: 1 item>	1,100.00	1,278.60	73
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	101	1,238.80	73
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	318	1,279.40	73.3
200	J-83	1,197.00	118: Zone - 3	<Collection: 0 items>	0.00	1,366.40	73.3
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	636.00	1,369.80	73.5
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	318	1,365.90	73.5
1081	J-338	1,300.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.00	73.6
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,370.20	73.7
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.20	73.7
198	J-V22-III	1,193.00	118: Zone - 3	<Collection: 1 item>	549	1,363.30	73.7

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	780	1,279.30	73.7
139	J-20	1,311.00	1115: Zone - 4	<Collection: 0 items>	0	1,481.40	73.7
256	J-140	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,280.60	73.8
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	410	1,286.90	73.9
126	J-7	1,325.00	1115: Zone - 4	<Collection: 0 items>	0	1,495.90	74
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	242.00	1,283.00	74
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,281.10	74
134	J-15	1,320.00	1115: Zone - 4	<Collection: 0 items>	0	1,491.40	74.2
227	J-110	1,208.00	118: Zone - 3	<Collection: 0 items>	0	1,379.60	74.2
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	318.00	1,206.40	74.6
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	260	1,230.80	74.8
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	481.00	1,208.00	74.9
185	J-V15-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	532	1,473.00	74.9
799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	477	1,283.80	75.2
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	101	1,239.90	75.2
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0	1,366.40	75.5
235	J-V6-II	1,203.00	118: Zone - 3	<Collection: 1 item>	446	1,377.40	75.5
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,279.60	75.5
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,279.70	75.6
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	795	1,284.80	75.6
229	J-112	1,208.00	118: Zone - 3	<Collection: 0 items>	0	1,382.80	75.6
127	J-8	1,318.00	1115: Zone - 4	<Collection: 0 items>	0	1,493.10	75.8
296	J-183	1,205.00	118: Zone - 3	<Collection: 0 items>	0	1,380.40	75.9
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0	1,377.20	76.2
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0	1,376.80	76.5
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	780	1,276.90	76.5
263	J-148	1,100.00	117: Zone - 2	<Collection: 1 item>	260.00	1,276.90	76.6
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	318.00	1,370.30	76.7
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	481.00	1,207.50	76.8
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0	1,373.60	76.8
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	318	1,278.60	77.3
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	477	1,369.20	77.5
167	J-48	1,303.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,482.30	77.6
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	159.00	1,389.90	77.9
152	J-V15-II-Z3	1,290.00	1115: Zone - 4	<Collection: 1 item>	532	1,470.00	77.9
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	276.00	1,278.30	78
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	318	1,380.00	78.3
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	431	1,288.00	78.3
168	J-V11-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	223	1,481.20	78.4
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.40	78.5
132	J-13	1,314.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,495.50	78.5
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0	1,372.70	78.6
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	318	1,376.70	78.6
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.90	78.7
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	318.00	1,205.00	78.7
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	318.00	1,205.20	78.8
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0.00	1,377.50	78.9
230	J-113	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,382.80	79.1
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	394	1,288.10	79.2
166	J-47	1,300.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,483.70	79.5
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0	1,283.70	79.5
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	636	1,206.40	79.8
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	350.00	1,283.10	80.1
231	J-V5-II	1,195.00	118: Zone - 3	<Collection: 1 item>	472	1,380.10	80.1
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	318	1,278.20	80.1
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	200.00	1,366.40	80.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	606.00	1,376.40	80.6
184	J-65	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,476.50	80.7
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	636.00	1,365.20	81
302	J-189	1,282.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.50	81.1
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	159	1,383.50	81.1
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	209	1,287.70	81.2
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	649	1,288.10	81.4
179	J-60	1,295.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,483.30	81.5
183	J-64	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,478.70	81.7
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0.00	1,378.90	81.7
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	250.00	1,366.30	81.9
128	J-9	1,301.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,490.70	82.1
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	318.00	1,369.90	82.1
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	646.00	1,376.50	82.4
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	318.00	1,372.50	82.4
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0.00	1,366.30	82.8
1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,281.40	82.8
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	409.00	1,283.70	83
262	J-147	1,085.00	117: Zone - 2	<Collection: 1 item>	159.00	1,277.20	83.1
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,376.50	83.3
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0	1,376.70	83.4
261	J-146	1,085.00	117: Zone - 2	<Collection: 1 item>	318	1,278.00	83.5
133	J-V18-III	1,300.00	1115: Zone - 4	<Collection: 1 item>	472.00	1,493.20	83.6
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	300.00	1,366.30	84.1
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0.00	1,379.50	84.2
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	101	1,239.90	84.3
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	477.00	1,365.00	84.4
165	J-V14-I-Z3	1,289.00	1115: Zone - 4	<Collection: 1 item>	367	1,484.40	84.5
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	84.6
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	636.00	1,283.80	84.7
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	159.00	1,380.50	85
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,286.90	85.2
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.50	85.4
187	J-V10-I-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	84	1,479.50	85.5
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.60	85.5
281	J-167	1,283.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,481.00	85.7
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,288.10	85.7
280	J-166	1,285.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,483.40	85.8
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	646	1,378.60	85.9
193	J-V15-III-Z3	1,271.00	1115: Zone - 4	<Collection: 1 item>	532.00	1,469.70	86
1077	J-337	1,270.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.10	86.1
180	J-V14-II-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	367	1,481.20	86.2
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,369.20	86.2
838	J-282	1,270.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.20	86.2
149	J-V21-I-Z2	1,270.00	1115: Zone - 4	<Collection: 1 item>	219	1,469.30	86.2
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	318	1,369.50	86.3
304	J-191	1,270.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,469.70	86.4
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,378.80	86.4
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,378.90	86.5
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	159	1,369.90	86.5
197	J-V22-I	1,269.00	1115: Zone - 4	<Collection: 1 item>	549	1,469.00	86.5
181	J-62	1,281.00	1115: Zone - 4	<Collection: 1 item>	318	1,481.30	86.6
270	J-V15-I-Z2	1,269.00	1115: Zone - 4	<Collection: 1 item>	532	1,470.10	87
178	J-59	1,282.00	1115: Zone - 4	<Collection: 0 items>	0	1,484.00	87.4
162	J-V13-I-Z3	1,285.00	1115: Zone - 4	<Collection: 1 item>	418.00	1,488.30	87.9
164	J-V17-III	1,280.00	1115: Zone - 4	<Collection: 1 item>	613	1,484.80	88.6

Junction Nodes- MDD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	67	1,376.60	89
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	89.4
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	89.4
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,376.60	89.4
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	318	1,377.00	89.6
129	J-10	1,281.00	1115: Zone - 4	<Collection: 0 items>	0	1,488.10	89.6
163	J-44	1,280.00	1115: Zone - 4	<Collection: 0 items>	0	1,488.20	90.1
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	318	1,379.20	90.5

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
835	J-281	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,361.70	39.7
882	J-286	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.20	39.9
1023	J-323	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.20	39.9
1042	J-327	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.20	39.9
1030	J-324	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.40	40
1019	J-322	1,270.00	118: Zone - 3	<Collection: 0 items>	0	1,362.70	40.1
769	J-255	1,270.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.80	40.6
830	J-279	1,162.00	117: Zone - 2	<Collection: 1 item>	336.4	1,258.40	41.7
777	J-259	1,170.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,267.20	42.1
1180	J-358	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,187.30	42.1
1103	J-342	1,270.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,367.80	42.3
182	J-V11-IV-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	1,126.94	1,362.80	42.8
704	J-235	1,264.00	118: Zone - 3	<Collection: 0 items>	0	1,362.80	42.8
317	J-204	1,268.00	118: Zone - 3	<Collection: 0 items>	0	1,366.80	42.8
1208	J-363	1,086.00	116: Zone - 1	<Collection: 0 items>	0.00	1,185.40	43
272	J-V14-I-Z2	1,264.00	118: Zone - 3	<Collection: 1 item>	275.85	1,364.20	43.3
157	J-V19-I	1,371.00	1115: Zone - 4	<Collection: 1 item>	2,260.61	1,471.20	43.3
754	J-248	1,085.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,185.40	43.5
285	J-171	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,270.70	43.6
869	J-283	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,270.70	43.6
811	J-271	1,002.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,103.20	43.8
1100	J-341	1,270.00	118: Zone - 3	<Collection: 0 items>	0.00	1,371.80	44
301	J-188	1,260.00	118: Zone - 3	<Collection: 0 items>	0	1,361.90	44.1
978	J-317	1,170.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,271.90	44.1
271	J-V10-I-Z2	1,258.00	118: Zone - 3	<Collection: 1 item>	2,543.18	1,360.20	44.2
1295	J-378	1,168.00	117: Zone - 2	<Collection: 0 items>	0	1,270.80	44.5
277	J-V15-III-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	1,789.65	1,362.90	44.5
732	J-241	1,000.00	115: Zone - 0	<Collection: 1 item>	1,611.36	1,102.90	44.5
922	J-299	1,050.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,153.10	44.6
195	J-V22-II	1,255.00	118: Zone - 3	<Collection: 1 item>	1,846.84	1,358.20	44.6
257	J-V25-II	1,086.00	116: Zone - 1	<Collection: 1 item>	3,700.40	1,190.00	45
1067	J-334	1,160.00	117: Zone - 2	<Collection: 1 item>	578.61	1,264.40	45.2
1033	J-325	1,258.00	118: Zone - 3	<Collection: 0 items>	0	1,362.40	45.2
1233	J-368	1,000.00	115: Zone - 0	<Collection: 0 items>	0	1,104.80	45.3
282	J-168	1,165.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,270.70	45.7
875	J-285	1,170.00	117: Zone - 2	<Collection: 0 items>	0	1,275.80	45.8
276	J-162	1,256.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.90	45.8
738	J-244	1,071.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,176.90	45.8
274	J-V20-I-Z2	1,256.00	118: Zone - 3	<Collection: 1 item>	1,009.20	1,362.10	45.9
241	J-V4-I-Z1	1,165.00	117: Zone - 2	<Collection: 1 item>	1,086.57	1,271.10	45.9
188	J-70	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.20	45.9
751	J-247	1,085.00	116: Zone - 1	<Collection: 1 item>	534.88	1,191.40	46
239	J-123	1,164.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,270.70	46.2
237	J-120	1,164.00	117: Zone - 2	<Collection: 0 items>	0.00	1,270.90	46.3
1218	J-365	1,088.00	116: Zone - 1	<Collection: 0 items>	0	1,195.00	46.3
254	J-138	1,090.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,197.10	46.3
1163	J-355	1,152.00	117: Zone - 2	<Collection: 0 items>	0.00	1,259.60	46.6
1127	J-346	1,166.00	117: Zone - 2	<Collection: 0 items>	0	1,274.10	46.8
658	J-216	1,079.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,187.30	46.8
981	J-318	1,168.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,276.30	46.9
273	J-V13-III-Z2	1,263.00	118: Zone - 3	<Collection: 1 item>	2,943.50	1,372.50	47.4
160	J-41	1,355.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,464.50	47.4
245	J-129	1,163.00	117: Zone - 2	<Collection: 0 items>	0.00	1,272.70	47.4
154	J-V19-II	1,360.00	1115: Zone - 4	<Collection: 1 item>	2,260.61	1,469.70	47.5
279	J-165	1,087.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,196.90	47.5
173	J-V12-I	1,261.00	118: Zone - 3	<Collection: 1 item>	1,463.34	1,371.50	47.8
174	J-55	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,365.70	47.9
746	J-246	1,000.00	115: Zone - 0	<Collection: 1 item>	1,069.75	1,110.70	47.9
240	J-124	1,160.00	117: Zone - 2	<Collection: 1 item>	814.09	1,271.40	48.2
662	J-218	1,058.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,169.60	48.3
1198	J-361	1,090.00	116: Zone - 1	<Collection: 0 items>	0.00	1,201.70	48.3

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
246	J-V2-I	1,161.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,273.60	48.7
767	J-254	1,256.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,368.70	48.7
900	J-293	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,282.80	48.8
177	J-58	1,265.00	118: Zone - 3	<Collection: 0 items>	0.00	1,377.90	48.9
771	J-256	1,240.00	118: Zone - 3	<Collection: 1 item>	534.88	1,353.00	48.9
937	J-304	1,060.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,173.70	49.2
158	J-39	1,354.00	1115: Zone - 4	<Collection: 0 items>	0	1,468.20	49.4
196	J-79	1,245.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.30	49.5
958	J-311	1,158.00	117: Zone - 2	<Collection: 1 item>	814.09	1,272.60	49.6
153	J-34	1,355.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,469.70	49.6
258	J-143	1,083.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,197.70	49.6
289	J-175	1,160.00	117: Zone - 2	<Collection: 0 items>	0	1,275.70	50
214	J-V2-II	1,160.00	117: Zone - 2	<Collection: 1 item>	1,073.12	1,275.70	50.1
965	J-313	1,092.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,207.70	50.1
962	J-312	1,072.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,187.80	50.1
288	J-174	1,160.00	117: Zone - 2	<Collection: 1 item>	534.88	1,275.80	50.1
192	J-V9-I	1,240.00	118: Zone - 3	<Collection: 1 item>	2,189.96	1,355.90	50.2
190	J-V8-I	1,245.00	118: Zone - 3	<Collection: 1 item>	1,897.30	1,361.20	50.3
727	J-239	1,052.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,168.20	50.3
175	J-V11-II-Z2	1,247.00	118: Zone - 3	<Collection: 1 item>	1,126.94	1,363.30	50.3
813	J-272	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,139.30	50.3
247	J-131	1,245.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.70	50.5
1189	J-359	1,055.00	116: Zone - 1	<Collection: 0 items>	0	1,171.80	50.5
742	J-245	1,034.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,150.80	50.5
191	J-V15-II-Z2	1,245.00	118: Zone - 3	<Collection: 1 item>	1,789.65	1,362.00	50.6
664	J-219	1,059.00	116: Zone - 1	<Collection: 1 item>	1,083.21	1,176.30	50.8
267	J-V11-III-Z2	1,240.00	118: Zone - 3	<Collection: 1 item>	2,253.88	1,357.60	50.9
155	J-36	1,340.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,457.80	51
298	J-185	1,247.00	118: Zone - 3	<Collection: 0 items>	0	1,364.80	51
929	J-301	1,078.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,196.00	51.1
794	J-265	1,142.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,260.10	51.1
734	J-242	1,023.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,141.20	51.1
189	J-71	1,243.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.20	51.1
908	J-295	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,288.50	51.3
194	J-76	1,243.00	118: Zone - 3	<Collection: 0 items>	0	1,362.00	51.5
220	J-103	1,091.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,210.00	51.5
299	J-186	1,240.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.40	51.7
1160	J-354	1,138.00	117: Zone - 2	<Collection: 1 item>	733.35	1,257.60	51.8
201	J-84	1,240.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.80	51.8
147	J-V21-I-Z3	1,335.00	1115: Zone - 4	<Collection: 1 item>	1,476.80	1,454.80	51.8
269	J-V9-II	1,225.00	118: Zone - 3	<Collection: 1 item>	2,189.96	1,345.20	52
141	J-22	1,350.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,470.20	52
159	J-V16-II	1,341.00	1115: Zone - 4	<Collection: 1 item>	1,924.21	1,461.60	52.2
266	J-V11-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	2,253.88	1,357.70	52.2
729	J-240	1,035.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,155.80	52.3
172	J-53	1,255.00	118: Zone - 3	<Collection: 0 items>	0.00	1,376.20	52.4
787	J-262	1,196.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,317.30	52.5
932	J-302	1,075.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,196.30	52.5
121	J-2	1,354.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,475.30	52.5
143	J-24	1,346.00	1115: Zone - 4	<Collection: 0 items>	0	1,467.90	52.8
142	J-23	1,346.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,468.10	52.8
169	J-50	1,260.00	118: Zone - 3	<Collection: 0 items>	0.00	1,383.00	53.2
1291	J-377	1,150.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.00	53.2
303	J-190	1,335.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,458.30	53.4
120	CAP-Belmont	1,363.00	1115: Zone - 4	<Collection: 1 item>	0.00	1,486.90	53.6
204	J-87	1,235.00	118: Zone - 3	<Collection: 0 items>	0	1,359.10	53.7
144	J-25	1,345.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.40	53.8
725	J-238	1,070.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,195.00	54.1
666	J-220	1,030.00	116: Zone - 1	<Collection: 1 item>	1,618.08	1,155.00	54.1
176	J-V13-II-Z2	1,260.00	118: Zone - 3	<Collection: 1 item>	1,873.75	1,385.70	54.4
145	J-26	1,344.00	1115: Zone - 4	<Collection: 0 items>	0	1,469.80	54.4

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
826	J-278	1,164.00	117: Zone - 2	<Collection: 1 item>	534.88	1,290.00	54.5
268	J-V7-I	1,231.00	118: Zone - 3	<Collection: 1 item>	2,284.16	1,357.10	54.6
898	J-292	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,286.20	54.6
934	J-303	1,074.00	116: Zone - 1	<Collection: 1 item>	1,069.75	1,200.40	54.7
1156	J-353	1,149.00	117: Zone - 2	<Collection: 0 items>	0	1,275.40	54.7
291	J-177	1,245.00	118: Zone - 3	<Collection: 0 items>	0.00	1,371.50	54.7
300	J-187	1,360.00	1115: Zone - 4	<Collection: 0 items>	0	1,487.20	55
1286	J-376	1,143.00	117: Zone - 2	<Collection: 0 items>	0	1,270.90	55.4
264	J-149	1,092.00	116: Zone - 1	<Collection: 1 item>	339.76	1,220.60	55.6
1153	J-352	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.70	55.7
773	J-257	1,216.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,344.70	55.7
1213	J-364	1,090.00	116: Zone - 1	<Collection: 0 items>	0	1,218.70	55.7
797	J-266	1,128.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,257.20	55.9
710	DZ-South	1,145.00	117: Zone - 2	<Collection: 0 items>	0.00	1,274.70	56.1
951	J-310	1,148.00	117: Zone - 2	<Collection: 0 items>	0	1,277.80	56.2
156	J-37	1,330.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,460.10	56.3
906	J-294	1,170.00	117: Zone - 2	<Collection: 1 item>	534.88	1,300.10	56.3
286	J-172	1,230.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.00	56.7
736	J-243	1,022.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,153.10	56.7
221	J-104	1,245.00	118: Zone - 3	<Collection: 0 items>	0	1,376.30	56.8
123	J-V18-I	1,340.00	1115: Zone - 4	<Collection: 1 item>	1,587.81	1,471.30	56.8
761	J-251	1,236.00	118: Zone - 3	<Collection: 1 item>	534.88	1,367.60	56.9
949	J-309	1,136.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,267.80	57
265	J-V24-II	1,100.00	117: Zone - 2	<Collection: 1 item>	2,623.92	1,232.70	57.4
783	J-260	1,178.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,310.80	57.5
263	J-148	1,100.00	117: Zone - 2	<Collection: 1 item>	874.64	1,232.90	57.5
809	J-270	1,160.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.40	57.7
292	J-178	1,241.00	118: Zone - 3	<Collection: 0 items>	0	1,374.70	57.8
297	J-184	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.00	58
818	J-275	1,090.00	116: Zone - 1	<Collection: 1 item>	339.76	1,224.10	58
148	J-V21-II-Z3	1,318.00	1115: Zone - 4	<Collection: 1 item>	1,476.80	1,452.40	58.2
1253	J-371	1,078.00	116: Zone - 1	<Collection: 0 items>	0.00	1,212.80	58.3
311	J-198	1,140.00	117: Zone - 2	<Collection: 0 items>	0.00	1,274.90	58.4
765	J-253	1,228.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,363.20	58.5
683	J-228	1,144.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,279.20	58.5
799	J-267	1,110.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,245.20	58.5
226	J-V6-I	1,227.00	118: Zone - 3	<Collection: 1 item>	1,500.34	1,362.50	58.6
122	J-3	1,335.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,470.80	58.7
249	J-V1-II	1,133.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,269.10	58.9
202	J-V8-II	1,223.00	118: Zone - 3	<Collection: 1 item>	1,897.30	1,359.10	58.9
1250	J-370	1,085.00	116: Zone - 1	<Collection: 0 items>	0.00	1,221.40	59
312	J-199	1,145.00	117: Zone - 2	<Collection: 1 item>	534.88	1,281.60	59.1
209	J-92	1,227.00	118: Zone - 3	<Collection: 0 items>	0.00	1,363.60	59.1
255	J-V25-I	1,110.00	117: Zone - 2	<Collection: 1 item>	3,700.40	1,246.60	59.1
290	J-176	1,320.00	1115: Zone - 4	<Collection: 0 items>	0	1,456.90	59.2
124	J-5	1,341.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,477.90	59.2
1167	J-356	1,119.00	117: Zone - 2	<Collection: 0 items>	0.00	1,256.10	59.3
130	J-V18-II	1,352.00	1115: Zone - 4	<Collection: 1 item>	1,587.81	1,489.20	59.3
186	J-67	1,310.00	1115: Zone - 4	<Collection: 0 items>	0	1,447.40	59.5
940	J-305	1,059.00	116: Zone - 1	<Collection: 1 item>	2,139.50	1,196.40	59.5
146	J-V20-I-Z3	1,329.00	1115: Zone - 4	<Collection: 1 item>	2,018.40	1,467.20	59.8
150	J-V20-II-Z3	1,320.00	1115: Zone - 4	<Collection: 1 item>	2,018.40	1,459.00	60.1
697	J-232	1,132.00	117: Zone - 2	<Collection: 1 item>	1,513.80	1,271.10	60.2
785	J-261	1,170.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,309.20	60.2
215	J-98	1,141.00	117: Zone - 2	<Collection: 0 items>	0.00	1,280.70	60.5
161	J-V16-I	1,319.00	1115: Zone - 4	<Collection: 1 item>	1,924.21	1,458.90	60.5
1281	J-374	1,128.00	117: Zone - 2	<Collection: 0 items>	0.00	1,268.50	60.8
140	J-21	1,330.00	1115: Zone - 4	<Collection: 0 items>	0	1,470.60	60.8
170	J-V13-I-Z2	1,237.00	118: Zone - 3	<Collection: 1 item>	1,873.75	1,377.80	60.9
896	J-291	1,152.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,293.30	61.1
233	J-116	1,221.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.50	61.2

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
293	J-180	1,221.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.70	61.3
225	J-108	1,225.00	118: Zone - 3	<Collection: 0 items>	0	1,367.00	61.4
1046	J-328	1,311.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,453.20	61.5
1049	J-329	1,308.00	1115: Zone - 4	<Collection: 0 items>	0	1,450.20	61.5
136	J-17	1,330.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,472.50	61.7
125	J-6	1,343.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,485.80	61.8
151	J-V16-III	1,310.00	1115: Zone - 4	<Collection: 1 item>	1,924.21	1,453.20	61.9
216	J-99	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,276.30	62
287	J-173	1,133.00	117: Zone - 2	<Collection: 0 items>	0	1,276.40	62
804	J-269	1,110.00	117: Zone - 2	<Collection: 1 item>	2,674.38	1,253.40	62
309	J-196	1,112.00	117: Zone - 2	<Collection: 1 item>	534.88	1,255.50	62.1
1194	J-360	1,062.00	116: Zone - 1	<Collection: 0 items>	0	1,205.80	62.2
310	J-197	1,126.00	117: Zone - 2	<Collection: 0 items>	0.00	1,270.00	62.3
295	J-182	1,218.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.60	62.6
137	J-18	1,323.00	1115: Zone - 4	<Collection: 0 items>	0	1,468.00	62.7
210	J-V7-II	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,365.20	62.8
138	J-V17-II	1,315.00	1115: Zone - 4	<Collection: 1 item>	2,062.13	1,460.20	62.8
307	J-194	1,135.00	117: Zone - 2	<Collection: 0 items>	0	1,280.70	63
315	J-202	1,130.00	117: Zone - 2	<Collection: 0 items>	0	1,275.90	63.1
252	J-136	1,110.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,256.60	63.4
260	J-V24-I	1,109.00	117: Zone - 2	<Collection: 1 item>	2,623.92	1,256.00	63.6
313	J-200	1,120.00	117: Zone - 2	<Collection: 0 items>	0.00	1,267.10	63.6
947	J-308	1,120.00	117: Zone - 2	<Collection: 1 item>	814.09	1,267.60	63.9
219	J-V23-I	1,098.00	117: Zone - 2	<Collection: 1 item>	928.46	1,245.70	63.9
253	J-137	1,100.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,247.90	64
185	J-V15-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,448.10	64.1
198	J-V22-III	1,193.00	118: Zone - 3	<Collection: 1 item>	1,846.84	1,341.40	64.2
217	J-100	1,123.00	117: Zone - 2	<Collection: 0 items>	0	1,271.90	64.4
1065	J-333	1,129.00	117: Zone - 2	<Collection: 1 item>	578.61	1,278.70	64.8
677	J-225	1,135.00	117: Zone - 2	<Collection: 1 item>	1,113.48	1,284.70	64.8
171	J-52	1,240.00	118: Zone - 3	<Collection: 0 items>	0	1,389.80	64.8
1053	J-330	1,170.00	117: Zone - 2	<Collection: 0 items>	0.00	1,319.80	64.8
256	J-140	1,110.00	117: Zone - 2	<Collection: 0 items>	0.00	1,260.00	64.9
262	J-147	1,085.00	117: Zone - 2	<Collection: 1 item>	534.88	1,235.00	64.9
1081	J-338	1,300.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,450.10	65
250	J-V1-I	1,114.00	117: Zone - 2	<Collection: 1 item>	2,038.58	1,264.50	65.1
223	J-106	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,375.50	65.1
203	J-86	1,210.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.20	65.4
832	J-280	1,093.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,244.80	65.7
675	Balerra	1,135.00	117: Zone - 2	<Collection: 1 item>	578.61	1,287.30	65.9
278	J-164	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,262.40	65.9
234	J-117	1,210.00	118: Zone - 3	<Collection: 0 items>	0	1,362.50	66
139	J-20	1,311.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,463.50	66
650	J-212	1,131.00	117: Zone - 2	<Collection: 1 item>	1,816.56	1,283.50	66
135	J-V17-I	1,320.00	1115: Zone - 4	<Collection: 1 item>	2,062.13	1,472.90	66.1
660	J-217	1,077.00	116: Zone - 1	<Collection: 1 item>	746.81	1,230.90	66.6
222	J-V12-II	1,227.00	118: Zone - 3	<Collection: 1 item>	1,463.34	1,381.50	66.9
308	J-195	1,130.00	117: Zone - 2	<Collection: 1 item>	1,604.63	1,284.70	66.9
259	J-144	1,105.00	117: Zone - 2	<Collection: 0 items>	0	1,259.90	67
227	J-110	1,208.00	118: Zone - 3	<Collection: 0 items>	0	1,363.30	67.2
251	J-135	1,105.00	117: Zone - 2	<Collection: 0 items>	0.00	1,260.70	67.4
652	J-213	1,128.00	117: Zone - 2	<Collection: 1 item>	746.81	1,283.70	67.4
670	J-222	1,130.00	117: Zone - 2	<Collection: 1 item>	578.61	1,286.10	67.5
801	J-268	1,088.00	117: Zone - 2	<Collection: 1 item>	2,139.50	1,244.60	67.8
224	J-V5-I	1,217.00	118: Zone - 3	<Collection: 1 item>	1,587.81	1,373.70	67.8
152	J-V15-II-Z3	1,290.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,446.80	67.9
235	J-V6-II	1,203.00	118: Zone - 3	<Collection: 1 item>	1,500.34	1,360.10	68
820	J-276	1,072.00	116: Zone - 1	<Collection: 1 item>	339.76	1,229.20	68
218	J-101	1,110.00	117: Zone - 2	<Collection: 0 items>	0	1,267.60	68.2
261	J-146	1,085.00	117: Zone - 2	<Collection: 1 item>	1,069.75	1,243.00	68.3
945	J-307	1,112.00	117: Zone - 2	<Collection: 1 item>	814.09	1,270.00	68.4

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
654	J-214	1,126.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,284.30	68.5
759	J-250	1,210.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,368.40	68.5
296	J-183	1,205.00	118: Zone - 3	<Collection: 0 items>	0	1,363.50	68.6
1077	J-337	1,270.00	1115: Zone - 4	<Collection: 0 items>	0	1,428.80	68.7
302	J-189	1,282.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,441.30	68.9
167	J-48	1,303.00	1115: Zone - 4	<Collection: 0 items>	0	1,462.50	69
294	J-V7-III	1,220.00	118: Zone - 3	<Collection: 1 item>	1,142.08	1,379.80	69.1
197	J-V22-I	1,269.00	1115: Zone - 4	<Collection: 1 item>	1,846.84	1,428.80	69.1
134	J-15	1,320.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,480.00	69.2
775	J-258	1,190.00	118: Zone - 3	<Collection: 1 item>	1,604.63	1,350.20	69.3
763	J-252	1,200.00	118: Zone - 3	<Collection: 1 item>	2,139.50	1,360.80	69.6
200	J-83	1,197.00	118: Zone - 3	<Collection: 0 items>	0	1,357.80	69.6
891	J-289	1,195.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,356.00	69.6
314	J-201	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,361.00	69.6
229	J-112	1,208.00	118: Zone - 3	<Collection: 0 items>	0.00	1,369.10	69.7
893	J-290	1,199.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,361.00	70.1
168	J-V11-I-Z3	1,300.00	1115: Zone - 4	<Collection: 1 item>	750.17	1,462.00	70.1
925	J-300	1,058.00	116: Zone - 1	<Collection: 1 item>	874.64	1,220.40	70.3
131	J-12	1,335.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,497.80	70.4
208	J-91	1,201.00	118: Zone - 3	<Collection: 0 items>	0.00	1,363.80	70.4
166	J-47	1,300.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,463.00	70.5
838	J-282	1,270.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,433.00	70.5
974	J-316	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,263.30	70.7
127	J-8	1,318.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,481.40	70.7
184	J-65	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,453.60	70.8
316	J-203	1,225.00	118: Zone - 3	<Collection: 0 items>	0.00	1,388.90	70.9
207	J-90	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,364.90	71.3
199	J-82	1,192.00	118: Zone - 3	<Collection: 0 items>	0.00	1,357.30	71.5
681	J-227	1,116.00	117: Zone - 2	<Collection: 1 item>	1,379.24	1,281.40	71.6
236	J-119	1,195.00	118: Zone - 3	<Collection: 0 items>	0.00	1,360.50	71.6
968	J-314	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,265.50	71.6
231	J-V5-II	1,195.00	118: Zone - 3	<Collection: 1 item>	1,587.81	1,361.00	71.8
149	J-V21-I-Z2	1,270.00	1115: Zone - 4	<Collection: 1 item>	736.72	1,436.20	71.9
179	J-60	1,295.00	1115: Zone - 4	<Collection: 0 items>	0	1,461.40	72
887	J-287	1,193.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,359.50	72
816	J-274	1,070.00	116: Zone - 1	<Collection: 1 item>	339.76	1,236.60	72.1
206	J-89	1,196.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.90	72.2
183	J-64	1,290.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,457.00	72.3
126	J-7	1,325.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,492.50	72.5
248	J-V3-I-Z2	1,190.00	118: Zone - 3	<Collection: 1 item>	2,038.58	1,357.80	72.6
193	J-V15-III-Z3	1,271.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,439.00	72.7
244	J-V4-II-Z2	1,186.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,354.40	72.9
304	J-191	1,270.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,438.60	73
230	J-113	1,200.00	118: Zone - 3	<Collection: 0 items>	0.00	1,368.70	73
270	J-V15-I-Z2	1,269.00	1115: Zone - 4	<Collection: 1 item>	1,789.65	1,438.20	73.2
701	J-234	1,098.00	117: Zone - 2	<Collection: 1 item>	1,177.40	1,267.50	73.3
243	J-127	1,184.00	118: Zone - 3	<Collection: 0 items>	0.00	1,354.40	73.7
228	J-111	1,190.00	118: Zone - 3	<Collection: 0 items>	0.00	1,360.60	73.8
205	J-88	1,191.00	118: Zone - 3	<Collection: 0 items>	0.00	1,362.40	74.2
1130	J-347	1,100.00	117: Zone - 2	<Collection: 0 items>	0.00	1,273.00	74.9
1201	J-362	1,090.00	117: Zone - 2	<Collection: 0 items>	0.00	1,263.30	75
180	J-V14-II-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	1,234.59	1,455.70	75.2
691	J-229	1,066.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.80	75.2
165	J-V14-I-Z3	1,289.00	1115: Zone - 4	<Collection: 1 item>	1,234.59	1,462.90	75.2
889	J-288	1,182.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,356.00	75.3
128	J-9	1,301.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,475.10	75.3
238	J-V4-I-Z2	1,180.00	118: Zone - 3	<Collection: 1 item>	2,173.14	1,354.10	75.3
181	J-62	1,281.00	1115: Zone - 4	<Collection: 1 item>	1,069.75	1,455.30	75.4
318	J-205	1,196.00	118: Zone - 3	<Collection: 1 item>	534.88	1,370.60	75.5
132	J-13	1,314.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,488.90	75.7
187	J-V10-I-Z3	1,282.00	1115: Zone - 4	<Collection: 1 item>	282.58	1,457.40	75.9

Junction Nodes- PHD

Id	Label	Elevation (ft)	Zone	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
211	J-94	1,184.00	118: Zone - 3	<Collection: 0 items>	0.00	1,359.40	75.9
242	J-126	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,354.40	75.9
232	J-115	1,185.00	118: Zone - 3	<Collection: 0 items>	0.00	1,360.60	76
281	J-167	1,283.00	1115: Zone - 4	<Collection: 0 items>	0	1,459.20	76.3
280	J-166	1,285.00	1115: Zone - 4	<Collection: 0 items>	0.00	1,461.30	76.3
1139	J-348	1,180.00	118: Zone - 3	<Collection: 1 item>	672.80	1,356.80	76.5
656	J-215	1,105.00	117: Zone - 2	<Collection: 1 item>	1,325.42	1,282.00	76.6
275	J-161	1,181.00	118: Zone - 3	<Collection: 0 items>	0.00	1,358.40	76.8
306	J-193	1,184.00	118: Zone - 3	<Collection: 1 item>	534.88	1,362.20	77.1
283	J-169	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,357.70	77.3
693	J-230	1,177.00	118: Zone - 3	<Collection: 1 item>	841.00	1,356.00	77.5
668	J-221	1,100.00	117: Zone - 2	<Collection: 1 item>	2,183.24	1,279.20	77.5
212	J-95	1,179.00	118: Zone - 3	<Collection: 0 items>	0.00	1,358.60	77.7
305	J-192	1,210.00	118: Zone - 3	<Collection: 1 item>	534.88	1,389.80	77.8
284	J-170	1,179.00	118: Zone - 3	<Collection: 0 items>	0	1,359.10	77.9
178	J-59	1,282.00	1115: Zone - 4	<Collection: 0 items>	0	1,462.40	78
133	J-V18-III	1,300.00	1115: Zone - 4	<Collection: 1 item>	1,587.81	1,480.50	78.1
679	J-226	1,107.00	117: Zone - 2	<Collection: 1 item>	1,449.88	1,287.90	78.3
699	J-233	1,092.00	117: Zone - 2	<Collection: 1 item>	1,375.88	1,273.30	78.4
1071	J-335	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,351.30	78.4
1142	J-349	1,175.00	118: Zone - 3	<Collection: 0 items>	0	1,356.40	78.5
162	J-V13-I-Z3	1,285.00	1115: Zone - 4	<Collection: 1 item>	1,406.15	1,466.90	78.7
164	J-V17-III	1,280.00	1115: Zone - 4	<Collection: 1 item>	2,062.13	1,462.60	79
757	J-249	1,180.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,363.70	79.5
1144	J-350	1,172.00	118: Zone - 3	<Collection: 1 item>	1,009.20	1,356.00	79.6
943	J-306	1,100.00	117: Zone - 2	<Collection: 1 item>	703.08	1,284.80	80
910	J-296	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,355.90	80.4
129	J-10	1,281.00	1115: Zone - 4	<Collection: 0 items>	0	1,468.00	80.9
163	J-44	1,280.00	1115: Zone - 4	<Collection: 0 items>	0	1,467.50	81.1
213	J-V3-I-Z1	1,171.00	118: Zone - 3	<Collection: 1 item>	225.39	1,358.60	81.1
1074	J-336	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,357.80	81.3
713	DZ-North	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	81.6
872	J-284	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	81.6
1262	J-372	1,170.00	118: Zone - 3	<Collection: 0 items>	0	1,358.60	81.6
918	J-298	1,170.00	118: Zone - 3	<Collection: 1 item>	1,069.75	1,358.70	81.6
912	J-297	1,170.00	118: Zone - 3	<Collection: 1 item>	534.88	1,360.50	82.4
970	J-315	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,281.40	82.8
1177	J-357	1,090.00	117: Zone - 2	<Collection: 0 items>	0	1,282.00	83.1
823	J-277	1,045.00	116: Zone - 1	<Collection: 1 item>	339.76	1,239.50	84.2

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
850	P-509	158	12	130	FALSE	0	0.00	0	0	0
851	P-510	243	12	130	FALSE	0	0.00	0	0	0
1024	P-620	419	12	130	FALSE	0	0.00	0	0	0
878	P-527	451	12	130	FALSE	0	-321.20	0	0	0.91
871	P-522	811	12	130	FALSE	0	129.96	0	0	0.37
1036	P-630	1,128	12	130	FALSE	0	31.82	0	0	0.09
877	P-526	1,269	12	130	FALSE	0	0.00	0	0	0
613	P-359	1,326	12	130	FALSE	0	1,447.59	0.005	1,326	4.11
1297	P-800	1,432	12	130	FALSE	0	-258.13	0	0	0.73
616	P-362	1,484	12	130	FALSE	0	1,788.61	0.007	1,484	5.07
1035	P-629	1,522	12	130	FALSE	0	-310.91	0	0	0.88
1034	P-628	1,563	12	130	FALSE	0	-342.73	0	0	0.97
1159	P-709	1,762	12	130	FALSE	0	-597.12	0.001	0	1.69
1166	P-714	1,805	12	130	FALSE	0	-640.35	0.001	0	1.82
1018	P-616	1,900	12	130	FALSE	0	-1,475.93	0.005	0	4.19
1296	P-799	2,015	12	130	FALSE	0	129.96	0	0	0.37
913	P-546	2,112	12	130	FALSE	0	-398.70	0	0	1.13
944	P-568	2,317	12	130	FALSE	0	703.08	0.001	0	1.99
1162	P-711	2,402	12	130	FALSE	0	-335.25	0	0	0.95
1294	P-798	2,513	12	130	FALSE	0	194.28	0	0	0.55
1161	P-710	2,586	12	130	FALSE	0	-242.25	0	0	0.69
1298	P-801	2,615	12	130	FALSE	0	-128.17	0	0	0.36
1045	P-637	3,389	12	130	FALSE	0	221.92	0	0	0.63
587	P-329	3,501	12	130	FALSE	0	-725.24	0.001	3,501	2.06
1075	P-657	4,087	12	130	FALSE	0	-777.05	0.002	0	2.2
1170	P-717	4,225	12	130	FALSE	0	-589.09	0.001	0	1.67
1171	P-718	4,601	12	130	FALSE	0	-792.55	0.002	0	2.25
1076	P-658	5,050	12	130	FALSE	0	-659.32	0.001	0	1.87
1133	P-692	5,511	12	130	FALSE	0	253.06	0	0	0.72
1107	P-676	5,983	12	130	FALSE	0	707.93	0.001	0	2.01
1290	P-795	8,450	12	130	FALSE	0	736.12	0.001	0	2.09
544	P-281	319	12	130	FALSE	0	-1,649.79	0.006	501	4.68
1264	P-780	553	12	130	FALSE	0	0.00	0	1,097	0
522	P-249	583	12	130	FALSE	0	-971.02	0.002	583	2.75
593	P-335	819	12	130	FALSE	0	384.79	0	819	1.09
396	P-76	841	12	130	FALSE	0	856.09	0.002	841	2.43
502	P-223	909	12	130	FALSE	0	-614.82	0.001	909	1.74
446	P-145	941	12	130	FALSE	0	-17.16	0	941	0.05
535	P-267	1,047	12	130	FALSE	0	-608.40	0.001	1,047	1.73
638	P-385	1,064	12	130	FALSE	0	-817.50	0.002	1,064	2.32
456	P-159	1,101	12	130	FALSE	0	0.00	0	1,239	0
560	P-301	1,104	12	130	FALSE	0	-518.74	0.001	1,104	1.47
602	P-346	1,106	12	130	FALSE	0	1,268.55	0.004	1,106	3.6
557	P-298	1,119	12	130	FALSE	0	-117.82	0	1,119	0.33
458	P-161	1,227	12	130	FALSE	0	-1,432.03	0.005	1,227	4.06
435	P-132	1,236	12	130	FALSE	0	749.59	0.001	1,236	2.13
441	P-140	1,240	12	130	FALSE	0	1,228.00	0.004	1,240	3.48
350	P-22	1,313	12	130	FALSE	0	-994.65	0.003	1,313	2.82
495	P-211	1,325	12	130	FALSE	0	-513.64	0.001	1,325	1.46
634	P-381	1,340	12	130	FALSE	0	875.31	0.002	1,340	2.48
451	P-150	1,373	12	130	FALSE	0	-280.05	0	1,373	0.79
496	P-213	1,383	12	130	FALSE	0	599.46	0.001	1,383	1.7
497	P-216	1,425	12	130	FALSE	0	1,069.68	0.003	1,425	3.03
380	P-56	1,436	12	130	FALSE	0	-344.91	0	1,436	0.98
398	P-78	1,441	12	130	FALSE	0	322.46	0	1,427	0.91

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
514	P-238	1,442	12	130	FALSE	0	-138.89	0	1,442	0.39
562	P-303	1,452	12	130	FALSE	0	807.54	0.002	1,452	2.29
365	P-40	1,469	12	130	FALSE	0	270.37	0	1,419	0.77
520	P-246	1,478	12	130	FALSE	0	-971.02	0.002	1,478	2.75
487	P-198	1,485	12	130	FALSE	0	1,139.02	0.003	1,485	3.23
624	P-371	1,486	12	130	FALSE	0	0.00	0	1,486	0
379	P-55	1,580	12	130	FALSE	0	-344.91	0	1,580	0.98
444	P-143	1,625	12	130	FALSE	0	280.61	0	1,625	0.8
343	P-15	1,648	12	130	FALSE	0	-431.44	0.001	1,648	1.22
563	P-304	1,772	12	130	FALSE	0	-177.09	0	1,772	0.5
457	P-160	1,805	12	130	FALSE	0	0.00	0	1,800	0
404	P-85	1,807	12	130	FALSE	0	-248.70	0	1,807	0.71
452	P-152	1,809	12	130	FALSE	0	1,202.12	0.004	1,705	3.41
464	P-167	1,865	12	130	FALSE	0	1,239.98	0.004	1,865	3.52
598	P-342	1,871	12	130	FALSE	0	-547.45	0.001	1,871	1.55
559	P-300	1,908	12	130	FALSE	0	-718.72	0.001	1,908	2.04
516	P-242	1,910	12	130	FALSE	0	-839.85	0.002	1,910	2.38
633	P-380	2,026	12	130	FALSE	0	-433.95	0.001	2,026	1.23
393	P-71	2,045	12	130	FALSE	0	-703.64	0.001	2,040	2
434	P-131	2,093	12	130	FALSE	0	1,066.15	0.003	1,989	3.02
348	P-20	2,108	12	130	FALSE	0	911.79	0.002	2,037	2.59
442	P-141	2,147	12	130	FALSE	0	243.38	0	2,147	0.69
447	P-146	2,210	12	130	FALSE	0	100.66	0	2,066	0.29
448	P-147	2,223	12	130	FALSE	0	619.40	0.001	1,882	1.76
561	P-302	2,290	12	130	FALSE	0	984.63	0.002	2,290	2.79
414	P-107	2,326	12	130	FALSE	0	732.59	0.001	2,320	2.08
517	P-243	2,398	12	130	FALSE	0	-531.28	0.001	2,398	1.51
558	P-299	2,487	12	130	FALSE	0	600.89	0.001	2,487	1.7
342	P-14	2,546	12	130	FALSE	0	1,156.36	0.003	2,526	3.28
493	P-207	2,564	12	130	FALSE	0	313.72	0	2,557	0.89
601	P-345	2,573	12	130	FALSE	0	-856.08	0.002	2,573	2.43
488	P-199	2,577	12	130	FALSE	0	-1,114.86	0.003	2,329	3.16
576	P-317	2,615	12	130	FALSE	0	195.75	0	2,615	0.56
341	P-13	2,674	12	130	FALSE	0	1,156.36	0.003	2,674	3.28
453	P-155	2,705	12	130	FALSE	0	-290.23	0	1,307	0.82
349	P-21	2,725	12	130	FALSE	0	1,067.48	0.003	2,665	3.03
443	P-142	2,730	12	130	FALSE	0	1,060.88	0.003	2,730	3.01
501	P-222	2,758	12	130	FALSE	0	-741.12	0.001	2,758	2.1
378	P-54	2,916	12	130	FALSE	0	1,061.24	0.003	2,851	3.01
551	P-289	2,934	12	130	FALSE	0	-316.56	0	2,934	0.9
583	P-324	2,937	12	130	FALSE	0	144.16	0	2,937	0.41
572	P-313	3,023	12	130	FALSE	0	879.18	0.002	3,032	2.49
575	P-316	3,023	12	130	FALSE	0	195.75	0	3,023	0.56
374	P-50	3,024	12	130	FALSE	0	-597.09	0.001	2,826	1.69
519	P-245	3,085	12	130	FALSE	0	-43.41	0	3,085	0.12
574	P-315	3,162	12	130	FALSE	0	1,168.96	0.003	3,365	3.32
545	P-282	3,171	12	130	FALSE	0	1,142.22	0.003	3,160	3.24
388	P-65	3,516	12	130	FALSE	0	-1,170.11	0.003	3,516	3.32
599	P-343	3,544	12	130	FALSE	0	126.3	0	3,544	0.36
546	P-283	3,600	12	130	FALSE	0	-1,073.35	0.003	3,600	3.04
387	P-64	3,878	12	130	FALSE	0	703.64	0.001	3,878	2
513	P-237	4,069	12	130	FALSE	0	-747.30	0.001	4,069	2.12
397	P-77	4,132	12	130	FALSE	0	717.19	0.001	4,132	2.03
465	P-168	4,142	12	130	FALSE	0	-251.16	0	3,112	0.71
375	P-51	4,329	12	130	FALSE	0	695.68	0.001	4,165	1.97

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
492	P-206	4,794	12	130	FALSE	0	-1,021.01	0.003	4,748	2.9
595	P-337	5,654	12	130	FALSE	0	-384.79	0	5,654	1.09
411	P-100	6,853	12	130	FALSE	0	979.81	0.002	6,853	2.78
412	P-101	8,142	12	130	FALSE	0	-867.03	0.002	8,142	2.46
1044	P-636	190	16	130	FALSE	0	-1,530.13	0.001	0	2.44
1078	P-659	236	16	130	FALSE	0	-1,529.69	0.001	0	2.44
715	P-427	239	16	130	FALSE	0	0.00	0	0	0
847	P-507	294	16	130	FALSE	0	0	0	0	0
1206	P-742	306	16	130	FALSE	0	0.00	0	2,609	0
714	P-426	473	16	130	FALSE	0	0	0	0	0
1073	P-656	532	16	130	FALSE	0	0.00	0	0	0
625	P-372	604	16	130	FALSE	0	1,024.16	0.001	604	1.63
417	P-111	639	16	130	FALSE	0	-1,155.68	0.001	639	1.84
1146	P-700	669	16	130	FALSE	0	0	0	0	0
1232	P-759	675	16	130	FALSE	0	3,750.86	0.007	0	5.99
1202	P-740	686	16	130	FALSE	0	0.00	0	0	0
997	P-604	721	16	130	FALSE	0	-3,728.45	0.007	0	5.95
377	P-53	768	16	130	FALSE	0	-3,021.45	0.005	768	4.82
1186	P-728	806	16	130	FALSE	0	0.00	0	0	0
632	P-379	832	16	130	FALSE	0	-4,191.74	0.009	832	6.69
1215	P-748	868	16	130	FALSE	0	-1,938.40	0.002	4,990	3.09
369	P-45	876	16	130	FALSE	0	2,021.68	0.002	876	3.23
477	P-186	938	16	130	FALSE	0	4,004.03	0.008	938	6.39
476	P-185	961	16	130	FALSE	0	1,069.75	0.001	961	1.71
868	P-520	966	16	130	FALSE	0	0.00	0	0	0
975	P-589	1,076	16	130	FALSE	0	-1,204.34	0.001	0	1.92
542	P-279	1,085	16	130	FALSE	0	228.14	0	1,085	0.36
1251	P-771	1,099	16	130	FALSE	0	-1,061.93	0.001	0	1.69
408	P-97	1,127	16	130	FALSE	0	-1,308.21	0.001	1,127	2.09
432	P-129	1,149	16	130	FALSE	0	-212.03	0	1,141	0.34
573	P-314	1,151	16	130	FALSE	0	-2,479.74	0.003	1,933	3.96
539	P-271	1,156	16	130	FALSE	0	-196.14	0	908	0.31
467	P-173	1,159	16	130	FALSE	0	2,446.62	0.003	1,159	3.9
1037	P-631	1,162	16	130	FALSE	0	831.57	0	0	1.33
372	P-48	1,210	16	130	FALSE	0	-1,432.64	0.001	1,210	2.29
1047	P-638	1,264	16	130	FALSE	0	-159.44	0	0	0.25
491	P-202	1,289	16	130	FALSE	0	-1,618.33	0.002	1,289	2.58
550	P-288	1,290	16	130	FALSE	0	1,450.22	0.001	1,290	2.31
1025	P-621	1,294	16	130	FALSE	0	376.05	0	0	0.6
833	P-497	1,306	16	130	FALSE	0	1,069.75	0.001	0	1.71
1178	P-722	1,337	16	130	FALSE	0	0	0	0	0
525	P-252	1,344	16	130	FALSE	0	0.00	0	1,344	0
352	P-24	1,354	16	130	FALSE	0	444.87	0	1,354	0.71
466	P-172	1,370	16	130	FALSE	0	-1,986.01	0.002	1,370	3.17
400	P-81	1,371	16	130	FALSE	0	2,115.92	0.003	1,371	3.38
1209	P-744	1,375	16	130	FALSE	0	0.00	0	0	0
484	P-195	1,411	16	130	FALSE	0	427.09	0	1,411	0.68
1031	P-626	1,420	16	130	FALSE	0	-522.52	0	0	0.83
1174	P-720	1,431	16	130	FALSE	0	0	0	0	0
1032	P-627	1,439	16	130	FALSE	0	-554.34	0	0	0.88
403	P-84	1,444	16	130	FALSE	0	789.38	0	1,444	1.26
623	P-370	1,452	16	130	FALSE	0	925.15	0.001	1,452	1.48
952	P-572	1,463	16	130	FALSE	0	-1,475.04	0.001	0	2.35
415	P-108	1,467	16	130	FALSE	0	1,576.75	0.001	1,440	2.52
884	P-531	1,512	16	130	FALSE	0	522.52	0	0	0.83

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
499	P-218	1,519	16	130	FALSE	0	-2,097.05	0.002	1,519	3.35
416	P-109	1,532	16	130	FALSE	0	-41.58	0	1,497	0.07
354	P-27	1,551	16	130	FALSE	0	343.48	0	1,551	0.55
373	P-49	1,559	16	130	FALSE	0	-2,759.77	0.004	1,559	4.4
865	P-518	1,641	16	130	FALSE	0	0.00	0	0	0
709	P-423	1,662	16	130	FALSE	0	225.39	0	0	0.36
589	P-331	1,682	16	130	FALSE	0	-1,859.98	0.002	1,682	2.97
610	P-356	1,687	16	130	FALSE	0	2,520.00	0.003	1,687	4.02
490	P-201	1,695	16	130	FALSE	0	665.83	0	1,695	1.06
382	P-58	1,715	16	130	FALSE	0	-419.77	0	1,715	0.67
552	P-293	1,736	16	130	FALSE	0	-1,921.65	0.002	1,736	3.07
1132	P-691	1,743	16	130	FALSE	0	-484.06	0	0	0.77
549	P-287	1,754	16	130	FALSE	0	-1,766.78	0.002	1,817	2.82
470	P-176	1,756	16	130	FALSE	0	0	0	1,756	0
383	P-59	1,762	16	130	FALSE	0	-321.07	0	1,762	0.51
504	P-225	1,765	16	130	FALSE	0	-289.08	0	1,765	0.46
1066	P-651	1,770	16	130	FALSE	0	2,499.50	0.003	0	3.99
370	P-46	1,779	16	130	FALSE	0	343.48	0	1,779	0.55
618	P-364	1,786	16	130	FALSE	0	-1,155.68	0.001	1,786	1.84
402	P-83	1,791	16	130	FALSE	0	789.38	0	1,791	1.26
924	P-555	1,811	16	130	FALSE	0	145.15	0	0	0.23
346	P-18	1,818	16	130	FALSE	0	537.95	0	1,684	0.86
347	P-19	1,831	16	130	FALSE	0	-2,315.53	0.003	1,750	3.69
909	P-544	1,871	16	130	FALSE	0	-1,452.26	0.001	0	2.32
712	P-425	1,900	16	130	FALSE	0	-892.21	0.001	0	1.42
494	P-210	1,904	16	130	FALSE	0	875.22	0	1,892	1.4
367	P-42	1,907	16	130	FALSE	0	-1,432.64	0.001	1,799	2.29
905	P-542	1,931	16	130	FALSE	0	0.00	0	0	0
1016	P-614	1,932	16	130	FALSE	0	0.00	0	0	0
345	P-17	1,951	16	130	FALSE	0	2,600.08	0.004	1,951	4.15
614	P-360	1,954	16	130	FALSE	0	1,310.22	0.001	1,954	2.09
1079	P-660	1,967	16	130	FALSE	0	-70.86	0	0	0.11
500	P-221	1,977	16	130	FALSE	0	292.01	0	1,977	0.47
355	P-28	1,977	16	130	FALSE	0	-1,087.62	0.001	1,967	1.74
405	P-88	1,981	16	130	FALSE	0	-176.42	0	1,969	0.28
608	P-354	2,014	16	130	FALSE	0	-828.8	0	2,014	1.32
395	P-74	2,017	16	130	FALSE	0	608.4	0	2,017	0.97
581	P-322	2,021	16	130	FALSE	0	1,154.33	0.001	2,021	1.84
333	P-4	2,040	16	130	FALSE	0	-2,431.62	0.003	2,040	3.88
591	P-333	2,051	16	130	FALSE	0	-655.84	0	1,256	1.05
911	P-545	2,052	16	130	FALSE	0	187.42	0	0	0.3
597	P-341	2,057	16	130	FALSE	0	-3,919.30	0.008	2,057	6.25
606	P-352	2,065	16	130	FALSE	0	3,731.32	0.007	2,065	5.95
582	P-323	2,067	16	130	FALSE	0	842.96	0	2,067	1.35
537	P-269	2,070	16	130	FALSE	0	1,518.43	0.001	2,070	2.42
609	P-355	2,077	16	130	FALSE	0	1,072.41	0.001	2,077	1.71
337	P-8	2,087	16	130	FALSE	0	2,323.27	0.003	2,087	3.71
498	P-217	2,097	16	130	FALSE	0	2,155.70	0.003	2,097	3.44
481	P-191	2,148	16	130	FALSE	0	1,301.73	0.001	2,148	2.08
344	P-16	2,150	16	130	FALSE	0	3,325.32	0.006	2,150	5.31
401	P-82	2,177	16	130	FALSE	0	2,115.92	0.003	2,177	3.38
469	P-175	2,180	16	130	FALSE	0	2,711.73	0.004	2,180	4.33
1288	P-793	2,184	16	130	FALSE	0	1,371.72	0.001	0	2.19
548	P-285	2,187	16	130	FALSE	0	177.68	0	2,187	0.28
536	P-268	2,205	16	130	FALSE	0	841	0	2,205	1.34

Pipe Table Report

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385	P-61	2,225	16	130	FALSE	0	527.14	0	2,225	0.84
936	P-563	2,228	16	130	FALSE	0	1,423.33	0.001	0	2.27
584	P-325	2,237	16	130	FALSE	0	-698.80	0	2,237	1.12
553	P-294	2,258	16	130	FALSE	0	1,055.70	0.001	2,258	1.68
1237	P-763	2,261	16	130	FALSE	0	1,069.75	0.001	0	1.71
468	P-174	2,271	16	130	FALSE	0	1,785.95	0.002	2,271	2.85
376	P-52	2,296	16	130	FALSE	0	-1,884.37	0.002	2,216	3.01
366	P-41	2,296	16	130	FALSE	0	-1,878.15	0.002	2,296	3
1207	P-743	2,303	16	130	FALSE	0	0.00	0	2,609	0
844	P-505	2,322	16	130	FALSE	0	-2,488.16	0.003	0	3.97
437	P-135	2,324	16	130	FALSE	0	1,830.90	0.002	2,324	2.92
418	P-112	2,333	16	130	FALSE	0	-1,155.68	0.001	2,333	1.84
1254	P-773	2,336	16	130	FALSE	0	-1,425.27	0.001	0	2.27
570	P-311	2,342	16	130	FALSE	0	1,428.17	0.001	2,618	2.28
445	P-144	2,349	16	130	FALSE	0	-34.82	0	2,349	0.06
1154	P-705	2,374	16	130	FALSE	0	1,920.89	0.002	0	3.07
788	P-470	2,393	16	130	FALSE	0	4,813.88	0.011	0	7.68
977	P-591	2,403	16	130	FALSE	0	1,204.34	0.001	0	1.92
619	P-365	2,404	16	130	FALSE	0	323.11	0	2,404	0.52
824	P-491	2,415	16	130	FALSE	0	339.76	0	0	0.54
1191	P-732	2,432	16	130	FALSE	0	-1,113.32	0.001	0	1.78
439	P-137	2,447	16	130	FALSE	0	1,611.27	0.002	2,447	2.57
332	P-3	2,455	16	130	FALSE	0	-590.77	0	2,455	0.94
837	P-500	2,457	16	130	FALSE	0	677.43	0	0	1.08
1168	P-715	2,489	16	130	FALSE	0	-1,349.36	0.001	0	2.15
353	P-25	2,492	16	130	FALSE	0	444.87	0	2,454	0.71
515	P-240	2,493	16	130	FALSE	0	1,371.13	0.001	2,493	2.19
424	P-119	2,499	16	130	FALSE	0	1,765.11	0.002	2,499	2.82
335	P-6	2,504	16	130	FALSE	0	-2,192.80	0.003	2,504	3.5
478	P-187	2,506	16	130	FALSE	0	3,290.67	0.006	2,506	5.25
427	P-123	2,523	16	130	FALSE	0	-1,872.26	0.002	2,523	2.99
1283	P-790	2,530	16	130	FALSE	0	656.47	0	0	1.05
399	P-80	2,532	16	130	FALSE	0	1,867.22	0.002	2,532	2.98
789	P-471	2,537	16	130	FALSE	0	2,139.50	0.003	0	3.41
839	P-501	2,539	16	130	FALSE	0	1,458.82	0.001	0	2.33
521	P-247	2,544	16	130	FALSE	0	971.02	0.001	2,544	1.55
1282	P-789	2,552	16	130	FALSE	0	-715.25	0	0	1.14
637	P-384	2,560	16	130	FALSE	0	2,450.30	0.003	2,560	3.91
449	P-148	2,592	16	130	FALSE	0	263.79	0	2,592	0.42
636	P-383	2,599	16	130	FALSE	0	3,802.68	0.007	2,599	6.07
964	P-582	2,600	16	130	FALSE	0	-2,392.74	0.003	0	3.82
578	P-319	2,603	16	130	FALSE	0	-2,554.36	0.004	2,603	4.08
814	P-486	2,604	16	130	FALSE	0	1,069.75	0.001	0	1.71
605	P-351	2,630	16	130	FALSE	0	-538.72	0	2,630	0.86
640	P-387	2,643	16	130	FALSE	0	1,606.94	0.002	2,643	2.56
438	P-136	2,645	16	130	FALSE	0	-791.30	0	2,645	1.26
1164	P-712	2,657	16	130	FALSE	0	519.46	0	0	0.83
419	P-113	2,673	16	130	FALSE	0	766.03	0	2,642	1.22
1155	P-706	2,691	16	130	FALSE	0	2,518.02	0.003	0	4.02
506	P-229	2,700	16	130	FALSE	0	-1,204.34	0.001	2,700	1.92
808	P-483	2,712	16	130	FALSE	0	-5,199.03	0.013	0	8.3
508	P-231	2,716	16	130	FALSE	0	2,122.67	0.003	2,692	3.39
450	P-149	2,719	16	130	FALSE	0	-1,448.29	0.001	2,719	2.31
336	P-7	2,725	16	130	FALSE	0	2,754.72	0.004	2,725	4.4
828	P-494	2,728	16	130	FALSE	0	-1,448.43	0.001	0	2.31

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
371	P-47	2,749	16	130	FALSE	0	1,343.25	0.001	2,749	2.14
661	P-396	2,752	16	130	FALSE	0	-5,732.74	0.016	0	9.15
440	P-138	2,763	16	130	FALSE	0	1,269.63	0.001	2,763	2.03
600	P-344	2,775	16	130	FALSE	0	660.67	0	2,775	1.05
604	P-350	2,783	16	130	FALSE	0	-2,906.36	0.005	2,783	4.64
1169	P-716	2,788	16	130	FALSE	0	-760.26	0	0	1.21
873	P-523	2,794	16	130	FALSE	0	0.00	0	0	0
1293	P-797	2,810	16	130	FALSE	0	-1,255.91	0.001	0	2
384	P-60	2,815	16	130	FALSE	0	527.14	0	2,815	0.84
1072	P-655	2,827	16	130	FALSE	0	-777.05	0	0	1.24
556	P-297	2,835	16	130	FALSE	0	3,161.69	0.005	2,835	5.05
1287	P-792	2,840	16	130	FALSE	0	310.09	0	0	0.49
1043	P-635	2,842	16	130	FALSE	0	-1,308.21	0.001	0	2.09
474	P-181	2,870	16	130	FALSE	0	-2,962.79	0.005	2,845	4.73
617	P-363	2,871	16	130	FALSE	0	-1,478.79	0.001	2,871	2.36
1292	P-796	2,920	16	130	FALSE	0	-1,061.64	0.001	0	1.69
334	P-5	2,929	16	130	FALSE	0	-2,192.80	0.003	2,929	3.5
394	P-72	2,995	16	130	FALSE	0	2,155.70	0.003	2,976	3.44
588	P-330	3,005	16	130	FALSE	0	-1,704.30	0.002	3,005	2.72
1054	P-643	3,010	16	130	FALSE	0	-4,171.41	0.009	0	6.66
425	P-120	3,032	16	130	FALSE	0	602.84	0	3,032	0.96
489	P-200	3,071	16	130	FALSE	0	1,850.03	0.002	2,917	2.95
368	P-44	3,077	16	130	FALSE	0	-1,328.67	0.001	2,935	2.12
547	P-284	3,082	16	130	FALSE	0	-1,589.10	0.001	3,082	2.54
596	P-340	3,134	16	130	FALSE	0	886.69	0	3,134	1.41
1051	P-641	3,146	16	130	FALSE	0	2,258.16	0.003	0	3.6
954	P-574	3,160	16	130	FALSE	0	-2,408.81	0.003	0	3.84
359	P-32	3,172	16	130	FALSE	0	1,102.39	0.001	3,172	1.76
1190	P-731	3,182	16	130	FALSE	0	-3,354.41	0.006	0	5.35
615	P-361	3,214	16	130	FALSE	0	-478.39	0	3,214	0.76
607	P-353	3,220	16	130	FALSE	0	2,902.52	0.004	3,220	4.63
1052	P-642	3,224	16	130	FALSE	0	1,232.39	0.001	0	1.97
338	P-9	3,227	16	130	FALSE	0	1,987.28	0.002	3,227	3.17
1048	P-639	3,247	16	130	FALSE	0	-1,391.84	0.001	0	2.22
433	P-130	3,284	16	130	FALSE	0	-1,662.25	0.002	2,841	2.65
626	P-373	3,356	16	130	FALSE	0	2,499.19	0.003	3,356	3.99
1080	P-661	3,379	16	130	FALSE	0	1,458.82	0.001	0	2.33
381	P-57	3,396	16	130	FALSE	0	1,642.36	0.002	3,387	2.62
1050	P-640	3,396	16	130	FALSE	0	1,025.77	0.001	0	1.64
358	P-31	3,433	16	130	FALSE	0	2,579.18	0.004	3,433	4.12
436	P-133	3,437	16	130	FALSE	0	1,853.08	0.002	3,437	2.96
1247	P-769	3,456	16	130	FALSE	0	-1,187.49	0.001	0	1.89
479	P-188	3,476	16	130	FALSE	0	1,374.03	0.001	3,476	2.19
639	P-386	3,505	16	130	FALSE	0	1,576.81	0.001	3,505	2.52
1026	P-622	3,515	16	130	FALSE	0	-455.51	0	0	0.73
1255	P-774	3,558	16	130	FALSE	0	-1,949.72	0.002	0	3.11
410	P-99	3,562	16	130	FALSE	0	-1,917.70	0.002	3,562	3.06
1143	P-698	3,566	16	130	FALSE	0	383.28	0	0	0.61
1182	P-725	3,571	16	130	FALSE	0	0.00	0	0	0
1252	P-772	3,576	16	130	FALSE	0	-2,824.46	0.004	0	4.51
821	P-489	3,589	16	130	FALSE	0	-1,555.99	0.001	0	2.48
622	P-369	3,598	16	130	FALSE	0	-1,728.69	0.002	3,598	2.76
554	P-295	3,623	16	130	FALSE	0	-2,977.34	0.005	3,623	4.75
1175	P-721	3,637	16	130	FALSE	0	0.00	0	0	0
822	P-490	3,659	16	130	FALSE	0	-1,895.76	0.002	0	3.03

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
473	P-180	3,685	16	130	FALSE	0	737.61	0	3,196	1.18
972	P-587	3,847	16	130	FALSE	0	0.00	0	0	0
1028	P-624	3,848	16	130	FALSE	0	1,400.18	0.001	0	2.23
1220	P-751	3,888	16	130	FALSE	0	0.00	0	0	0
819	P-488	3,891	16	130	FALSE	0	-1,216.23	0.001	0	1.94
590	P-332	3,913	16	130	FALSE	0	-445.50	0	4,907	0.71
935	P-562	3,923	16	130	FALSE	0	-1,322.12	0.001	0	2.11
1197	P-737	3,953	16	130	FALSE	0	-1,528.22	0.001	0	2.44
1165	P-713	4,016	16	130	FALSE	0	671.65	0	0	1.07
772	P-460	4,081	16	130	FALSE	0	2,179.62	0.003	0	3.48
941	P-566	4,104	16	130	FALSE	0	-3,252.83	0.006	0	5.19
480	P-190	4,117	16	130	FALSE	0	1,836.61	0.002	4,117	2.93
1214	P-747	4,123	16	130	FALSE	0	-1,938.40	0.002	4,990	3.09
482	P-193	4,209	16	130	FALSE	0	2,293.91	0.003	4,209	3.66
919	P-551	4,225	16	130	FALSE	0	923.36	0.001	0	1.47
1231	P-758	4,265	16	130	FALSE	0	3,750.86	0.007	0	5.99
1257	P-776	4,280	16	130	FALSE	0	2,286.98	0.003	0	3.65
702	P-418	4,280	16	130	FALSE	0	1,177.40	0.001	0	1.88
955	P-575	4,289	16	130	FALSE	0	-1,758.45	0.002	0	2.81
1006	P-607	4,289	16	130	FALSE	0	-904.37	0.001	0	1.44
1147	P-701	4,301	16	130	FALSE	0	383.28	0	0	0.61
586	P-328	4,305	16	130	FALSE	0	-1,470.29	0.001	4,305	2.35
566	P-307	4,318	16	130	FALSE	0	-178.52	0	4,318	0.28
966	P-583	4,354	16	130	FALSE	0	-2,930.26	0.005	0	4.68
1104	P-673	4,374	16	130	FALSE	0	-1,329.01	0.001	0	2.12
867	P-519	4,447	16	130	FALSE	0	0	0	0	0
621	P-368	4,534	16	130	FALSE	0	-1,941.69	0.002	4,534	3.1
923	P-554	4,680	16	130	FALSE	0	-2,139.50	0.003	0	3.41
592	P-334	4,782	16	130	FALSE	0	1,939.03	0.002	4,411	3.09
963	P-581	4,804	16	130	FALSE	0	-2,012.16	0.002	0	3.21
1256	P-775	4,806	16	130	FALSE	0	1,762.53	0.002	0	2.81
485	P-196	4,867	16	130	FALSE	0	-2,196.83	0.003	4,848	3.51
956	P-576	4,989	16	130	FALSE	0	-1,995.53	0.002	0	3.18
657	P-394	4,990	16	130	FALSE	0	845.95	0	0	1.35
764	P-456	4,997	16	130	FALSE	0	1,522.41	0.001	0	2.43
957	P-577	4,999	16	130	FALSE	0	-1,027.54	0.001	0	1.64
802	P-478	5,066	16	130	FALSE	0	414.34	0	0	0.66
766	P-457	5,066	16	130	FALSE	0	-862.19	0	0	1.38
890	P-533	5,070	16	130	FALSE	0	1,063.50	0.001	0	1.7
901	P-539	5,075	16	130	FALSE	0	1,029.64	0.001	0	1.64
686	P-410	5,092	16	130	FALSE	0	831.33	0	0	1.33
665	P-398	5,092	16	130	FALSE	0	-1,494.75	0.001	0	2.39
680	P-406	5,093	16	130	FALSE	0	-1,395.45	0.001	0	2.23
961	P-580	5,093	16	130	FALSE	0	-892.88	0.001	0	1.42
667	P-399	5,096	16	130	FALSE	0	2,277.04	0.003	0	3.63
827	P-493	5,116	16	130	FALSE	0	-913.55	0.001	0	1.46
888	P-532	5,117	16	130	FALSE	0	1,734.56	0.002	0	2.77
780	P-465	5,136	16	130	FALSE	0	2,126.65	0.003	0	3.39
805	P-480	5,138	16	130	FALSE	0	-1,725.17	0.002	0	2.75
902	P-540	5,150	16	130	FALSE	0	1,071.42	0.001	0	1.71
969	P-585	5,150	16	130	FALSE	0	1,204.34	0.001	0	1.92
730	P-434	5,172	16	130	FALSE	0	2,072.20	0.002	0	3.31
747	P-445	5,172	16	130	FALSE	0	-1,611.36	0.002	0	2.57
895	P-536	5,191	16	130	FALSE	0	-3,256.53	0.006	0	5.2
899	P-538	5,192	16	130	FALSE	0	1,532.46	0.001	0	2.45

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
892	P-534	5,192	16	130	FALSE	0	-6.25	0	0	0.01
894	P-535	5,194	16	130	FALSE	0	-1,263.42	0.001	0	2.02
669	P-400	5,194	16	130	FALSE	0	915.98	0.001	0	1.46
663	P-397	5,195	16	130	FALSE	0	2,496.26	0.003	0	3.98
800	P-477	5,207	16	130	FALSE	0	2,018.96	0.002	0	3.22
781	P-466	5,207	16	130	FALSE	0	2,939.82	0.005	0	4.69
733	P-436	5,216	16	130	FALSE	0	0.00	0	0	0
807	P-482	5,242	16	130	FALSE	0	-3,050.19	0.005	0	4.87
750	P-448	5,246	16	130	FALSE	0	-630.76	0	0	1.01
897	P-537	5,250	16	130	FALSE	0	133.51	0	0	0.21
731	P-435	5,263	16	130	FALSE	0	454.12	0	0	0.72
782	P-467	5,279	16	130	FALSE	0	942.39	0.001	0	1.5
921	P-553	5,283	16	130	FALSE	0	1,028.73	0.001	0	1.64
946	P-569	5,287	16	130	FALSE	0	1,955.30	0.002	0	3.12
917	P-550	5,287	16	130	FALSE	0	885.32	0	0	1.41
774	P-461	5,290	16	130	FALSE	0	1,644.74	0.002	0	2.62
475	P-184	5,308	16	130	FALSE	0	-1,577.74	0.001	5,295	2.52
948	P-570	5,350	16	130	FALSE	0	829.75	0	0	1.32
752	P-449	5,375	16	130	FALSE	0	-2,208.18	0.003	0	3.52
916	P-549	5,408	16	130	FALSE	0	1,702.71	0.002	0	2.72
1172	P-719	5,410	16	130	FALSE	0	-3,059.52	0.005	0	4.88
790	P-472	5,418	16	130	FALSE	0	-1,604.63	0.001	0	2.56
776	P-462	5,419	16	130	FALSE	0	-1,299.08	0.001	0	2.07
744	P-443	5,490	16	130	FALSE	0	-1,113.07	0.001	0	1.78
1056	P-645	5,491	16	130	FALSE	0	3,299.90	0.006	0	5.27
1057	P-646	5,492	16	130	FALSE	0	1,312.77	0.001	0	2.09
1131	P-690	5,496	16	130	FALSE	0	-737.12	0	0	1.18
635	P-382	5,502	16	130	FALSE	0	1,309.25	0.001	5,502	2.09
745	P-444	5,594	16	130	FALSE	0	2,924.09	0.005	0	4.67
920	P-552	5,619	16	130	FALSE	0	882.33	0	0	1.41
743	P-442	5,664	16	130	FALSE	0	783.45	0	0	1.25
1183	P-726	5,714	16	130	FALSE	0	372.80	0	0	0.59
1188	P-730	5,747	16	130	FALSE	0	2,777.80	0.004	0	4.43
1192	P-733	5,761	16	130	FALSE	0	2,241.08	0.003	0	3.58
829	P-495	5,795	16	130	FALSE	0	1,859.94	0.002	0	2.97
914	P-547	5,879	16	130	FALSE	0	-933.57	0.001	0	1.49
748	P-446	7,695	16	130	FALSE	0	0.00	0	0	0
1236	P-762	8,386	16	130	FALSE	0	1,069.75	0.001	0	1.71
1017	P-615	191	24	130	FALSE	0	0.00	0	0	0
706	P-421	225	24	130	FALSE	0	0.00	0	0	0
1055	P-644	250	24	130	FALSE	0	0.00	0	0	0
1021	P-618	409	24	130	FALSE	0	0.00	0	0	0
1187	P-729	446	24	130	FALSE	0	0.00	0	0	0
1005	P-606	797	24	130	FALSE	0	7,539.02	0.004	0	5.35
603	P-347	837	24	130	FALSE	0	102.76	0	837	0.07
1020	P-617	866	24	130	FALSE	0	1,385.91	0	0	0.98
979	P-592	905	24	130	FALSE	0	0.00	0	0	0
1140	P-696	977	24	130	FALSE	0	2,523.00	0	0	1.79
848	P-508	988	24	130	FALSE	0	404.92	0	0	0.29
340	P-12	1,228	24	130	FALSE	0	8,272.84	0.004	1,228	5.87
526	P-253	1,246	24	130	FALSE	0	0.00	0	1,246	0
1098	P-670	1,257	24	130	FALSE	0	3,519.61	0.001	0	2.5
428	P-124	1,278	24	130	FALSE	0	7,296.45	0.003	1,278	5.17
518	P-244	1,365	24	130	FALSE	0	-1,389.91	0	1,365	0.99
1068	P-652	1,397	24	130	FALSE	0	-6,854.78	0.003	0	4.86

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
422	P-117	1,581	24	130	FALSE	0	-3,781.50	0.001	1,581	2.68
430	P-126	1,581	24	130	FALSE	0	6,468.43	0.003	1,581	4.59
363	P-38	1,603	24	130	FALSE	0	400.88	0	2,320	0.28
429	P-125	1,610	24	130	FALSE	0	6,468.43	0.003	1,610	4.59
931	P-560	1,621	24	130	FALSE	0	-2,690.53	0.001	0	1.91
1069	P-653	1,701	24	130	FALSE	0	-4,915.38	0.002	0	3.49
386	P-62	1,733	24	130	FALSE	0	-3,461.38	0.001	1,733	2.45
1097	P-669	1,768	24	130	FALSE	0	-2,627.40	0.001	0	1.86
825	P-492	1,792	24	130	FALSE	0	-5,059.98	0.002	0	3.59
331	P-2	1,793	24	130	FALSE	0	6,194.51	0.003	1,793	4.39
1082	P-662	1,807	24	130	FALSE	0	4,958.72	0.002	3,765	3.52
1083	P-663	1,958	24	130	FALSE	0	4,958.72	0.002	3,765	3.52
798	P-476	1,971	24	130	FALSE	0	4,676.48	0.002	0	3.32
568	P-309	1,983	24	130	FALSE	0	4,510.08	0.001	1,694	3.2
413	P-102	1,985	24	130	FALSE	0	-1,911.24	0	1,985	1.36
907	P-543	2,028	24	130	FALSE	0	-7,177.09	0.003	0	5.09
579	P-320	2,063	24	130	FALSE	0	-3,680.87	0.001	2,063	2.61
460	P-163	2,082	24	130	FALSE	0	-2,446.49	0	2,082	1.74
463	P-166	2,083	24	130	FALSE	0	1,732.74	0	2,083	1.23
1200	P-739	2,095	24	130	FALSE	0	5,882.95	0.002	0	4.17
330	P-1	2,119	24	130	FALSE	0	9,378.26	0.005	2,119	6.65
392	P-69	2,154	24	130	FALSE	0	4,015.46	0.001	2,125	2.85
1145	P-699	2,203	24	130	FALSE	0	625.92	0	0	0.44
1128	P-688	2,207	24	130	FALSE	0	3,720.94	0.001	0	2.64
953	P-573	2,267	24	130	FALSE	0	3,655.17	0.001	0	2.59
655	P-393	2,444	24	130	FALSE	0	-1,650.74	0	0	1.17
580	P-321	2,477	24	130	FALSE	0	-1,126.51	0	2,477	0.8
959	P-578	2,487	24	130	FALSE	0	-2,535.78	0	0	1.8
364	P-39	2,493	24	130	FALSE	0	400.88	0	2,584	0.28
1129	P-689	2,518	24	130	FALSE	0	3,467.88	0.001	0	2.46
676	P-404	2,546	24	130	FALSE	0	-2,490.04	0	0	1.77
630	P-377	2,551	24	130	FALSE	0	2,086.01	0	2,551	1.48
1221	P-752	2,614	24	130	FALSE	0	5,882.95	0.002	0	4.17
1158	P-708	2,617	24	130	FALSE	0	-7,418.53	0.004	0	5.26
611	P-357	2,623	24	130	FALSE	0	-2,021.87	0	2,623	1.43
472	P-179	2,654	24	130	FALSE	0	-4,733.09	0.002	2,654	3.36
455	P-157	2,673	24	130	FALSE	0	-985.99	0	1,397	0.7
631	P-378	2,681	24	130	FALSE	0	-2,105.73	0	2,681	1.49
454	P-156	2,689	24	130	FALSE	0	1,431.46	0	1,239	1.02
1157	P-707	2,702	24	130	FALSE	0	-6,821.40	0.003	0	4.84
351	P-23	2,731	24	130	FALSE	0	6,340.40	0.003	2,731	4.5
653	P-392	2,750	24	130	FALSE	0	-903.93	0	0	0.64
612	P-358	2,791	24	130	FALSE	0	-4,004.33	0.001	2,791	2.84
980	P-593	2,886	24	130	FALSE	0	1,954.08	0	0	1.39
421	P-116	2,901	24	130	FALSE	0	-1,140.17	0	2,901	0.81
459	P-162	2,919	24	130	FALSE	0	-2,640.77	0.001	4,198	1.87
406	P-89	2,977	24	130	FALSE	0	-20.43	0	2,977	0.01
462	P-165	2,980	24	130	FALSE	0	2,658.25	0.001	2,980	1.89
927	P-557	2,988	24	130	FALSE	0	-10,264.50	0.006	0	7.28
564	P-305	3,024	24	130	FALSE	0	-2,199.66	0	3,024	1.56
420	P-115	3,028	24	130	FALSE	0	-1,370.44	0	3,028	0.97
360	P-34	3,031	24	130	FALSE	0	7,440.19	0.004	3,031	5.28
423	P-118	3,032	24	130	FALSE	0	2,447.37	0	3,032	1.74
555	P-296	3,500	24	130	FALSE	0	8,089.67	0.004	3,500	5.74
361	P-35	3,608	24	130	FALSE	0	4,845.34	0.002	3,739	3.44

Pipe Table Report

Id	Label	Scaled Length (ft)	Diameter (in)	Hazen-Williams C	Has Check Valve?	Minor Loss	Flow (gpm)	Headloss Gradient (ft/ft)	Length (User Defined) (ft)	Velocity (ft/s)
982	P-594	3,679	24	130	FALSE	0	5,860.44	0.002	0	4.16
391	P-68	3,770	24	130	FALSE	0	4,696.37	0.002	3,531	3.33
1193	P-734	3,927	24	130	FALSE	0	-519.59	0	0	0.37
1195	P-735	4,047	24	130	FALSE	0	-5,911.92	0.002	0	4.19
1196	P-736	4,098	24	130	FALSE	0	-7,440.14	0.004	0	5.28
620	P-366	4,209	24	130	FALSE	0	2,130.10	0	4,209	1.51
1141	P-697	4,266	24	130	FALSE	0	1,466.92	0	0	1.04
339	P-11	4,584	24	130	FALSE	0	-5,268.68	0.002	4,584	3.74
577	P-318	4,861	24	130	FALSE	0	-7,062.62	0.003	4,861	5.01
1105	P-674	4,900	24	130	FALSE	0	723.59	0	0	0.51
760	P-454	4,996	24	130	FALSE	0	-3,605.04	0.001	0	2.56
703	P-419	5,093	24	130	FALSE	0	-3,437.07	0.001	0	2.44
756	P-452	5,097	24	130	FALSE	0	-2,153.27	0	0	1.53
1184	P-727	5,103	24	130	FALSE	0	5,129.25	0.002	0	3.64
810	P-484	5,130	24	130	FALSE	0	4,525.40	0.001	0	3.21
1269	P-783	5,155	24	130	FALSE	0	7,711.97	0.004	0	5.47
755	P-451	5,168	24	130	FALSE	0	4,059.19	0.001	0	2.88
685	P-409	5,195	24	130	FALSE	0	-3,409.76	0.001	0	2.42
770	P-459	5,208	24	130	FALSE	0	3,611.19	0.001	0	2.56
960	P-579	5,235	24	130	FALSE	0	-4,242.75	0.001	0	3.01
671	P-401	5,297	24	130	FALSE	0	-4,317.45	0.001	0	3.06
682	P-407	5,297	24	130	FALSE	0	4,165.87	0.001	0	2.95
672	P-402	5,305	24	130	FALSE	0	2,119.39	0	0	1.5
768	P-458	5,348	24	130	FALSE	0	-3,799.34	0.001	0	2.69
967	P-584	5,402	24	130	FALSE	0	6,802.25	0.003	0	4.82
762	P-455	5,490	24	130	FALSE	0	1,333.70	0	0	0.95
1106	P-675	5,604	24	130	FALSE	0	-3,122.35	0.001	0	2.21
933	P-561	5,978	24	130	FALSE	0	-771.96	0	0	0.55
357	P-30	1,162	24	130	FALSE	0	5,739.80	0.002	1,162	4.07
356	P-29	1,404	24	130	FALSE	0	-1,890.60	0	1,404	1.34
569	P-310	1,417	24	130	FALSE	0	4,411.62	0.001	1,791	3.13
407	P-90	1,734	24	130	FALSE	0	-2,431.36	0	1,734	1.72
390	P-67	2,001	24	130	FALSE	0	5,982.03	0.002	2,001	4.24
565	P-306	2,534	24	130	FALSE	0	-2,021.14	0	2,534	1.43
567	P-308	3,292	24	130	FALSE	0	4,696.63	0.002	2,975	3.33
389	P-66	3,427	24	130	FALSE	0	7,867.05	0.004	3,427	5.58
1096	P-668	402	30	130	FALSE	0	15,471.47	0.005	50	7.02
1090	P-665	576	30	130	FALSE	0	15,046.51	0.004	50	6.83
1249	P-770	715	30	130	FALSE	0	-16,004.01	0.005	50	7.26
1259	P-777	716	30	130	FALSE	0	-16,810.49	0.005	50	7.63
1273	P-785	857	30	130	FALSE	0	-14,697.88	0.004	50	6.67
1261	P-778	1,030	30	130	FALSE	0	15,370.78	0.005	50	6.98
1087	P-664	1,033	30	130	FALSE	0	15,856.26	0.005	50	7.2
1268	P-782	1,077	30	130	FALSE	0	-15,183.28	0.005	50	6.89
1279	P-788	1,082	30	130	FALSE	0	13,619.12	0.004	50	6.18
1275	P-786	1,154	30	130	FALSE	0	-11,678.58	0.003	50	5.3
1266	P-781	1,249	30	130	FALSE	0	-11,151.34	0.003	50	5.06
1271	P-784	1,262	30	130	FALSE	0	-7,743.04	0.001	0	3.51
1300	P-802	1,557	30	130	FALSE	0	17,060.66	0.006	50	7.74
983	P-595	1,593	30	130	FALSE	0	13,186.61	0.003	200	5.99
1277	P-787	1,659	30	130	FALSE	0	16,685.21	0.005	50	7.57
471	CAP-bel	498	36	130	FALSE	0	15,314.37	0.002	50	4.83
1134	P-693	1,504	36	130	FALSE	0	-16,320.13	0.002	100	5.14
1102	P-672	2,429	36	130	FALSE	0	12,489.85	0.001	0	3.94
678	P-405	2,546	36	130	FALSE	0	11,031.51	0.001	0	3.48

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed)	Fire Flow (Available)	Flow (Total Needed)	Flow (Total Available)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
CAP-Beaumont	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.7	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-2	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-3	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	61.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V18-I	115: Zone	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	59.4	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-5	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.6	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-6	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-7	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-8	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-9	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76.4	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-10	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	83.1	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V18-II	115: Zone	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	59.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-12	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.6	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-13	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.3	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V18-III	115: Zone	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	75.3	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-15	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V17-I	115: Zone	2	TRUE	1,500.00	2,000.00	2,713.74	3,213.74	20	68.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-17	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-18	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.6	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V17-II	115: Zone	2	TRUE	1,500.00	2,000.00	2,713.74	3,213.74	20	64.1	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-20	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	69.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-21	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.4	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-22	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.2	20	44.4	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-23	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.7	20	44.4	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-24	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.7	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-25	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-26	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.6	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V20-I-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	2,688.00	3,188.00	20	60.3	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V21-I-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	2,369.22	2,869.22	20	54.4	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V21-II-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	2,369.22	2,869.22	20	61.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V21-III-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	1,933.62	2,433.62	20	79	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V16-II	115: Zone	2	TRUE	1,500.00	2,000.00	2,688.00	3,188.00	20	63	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V15-II-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	66.6	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-34	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V19-III	115: Zone	2	TRUE	1,500.00	2,000.00	2,830.56	3,330.56	20	49.8	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-36	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-37	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.1	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V19-I	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.6	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-39	115: Zone	2	TRUE	1,500.00	2,000.00	2,830.56	3,330.56	20	44	20	47.8	154: J-V19-II	20	40.1	1042: J-327	TRUE
J-V16-I	115: Zone	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	50.8	20	44.3	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-41	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.2	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V16-II	115: Zone	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	49.3	20	44.4	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V13-I-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	2,632.56	3,132.56	20	64.1	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-44	115: Zone	2	TRUE	1,500.00	2,000.00	2,327.64	2,827.64	20	76.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V17-III	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.5	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V14-I-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	2,713.74	3,213.74	20	82.6	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-47	115: Zone	2	TRUE	1,500.00	2,000.00	2,226.68	2,726.68	20	79.4	20	44.8	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-48	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.7	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V11-I-Z3	115: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	72.8	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-50	118: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.2	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-50	118: Zone	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-V13-I-22	18: Zone -	2	TRUE	1,500.00	2,000.00	2,602.86	3,102.86	20	54.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-52	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-53	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V12-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,361.30	2,861.30	20	49.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-55	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V11-II-22	18: Zone -	2	TRUE	1,500.00	2,000.00	2,163.30	2,663.30	20	52.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V13-II-22	18: Zone -	2	TRUE	1,500.00	2,000.00	2,602.86	3,102.86	20	54.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-58	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-59	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	81.1	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-60	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V14-II-23	15: Zone -	2	TRUE	1,500.00	2,000.00	2,226.66	2,726.66	20	77.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-62	15: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	75.5	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-64	15: Zone -	2	TRUE	1,500.00	2,000.00	2,163.30	2,663.30	20	45	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-65	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V15-I-23	15: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	70	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-67	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V10-I-23	15: Zone -	2	TRUE	1,500.00	2,000.00	1,666.32	2,166.32	20	77.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-70	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-71	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V8-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,816.72	3,116.72	20	51.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V15-II-22	18: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	51.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V9-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,788.98	3,288.98	20	79.4	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-76	18: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	51.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V22-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	44.2	20	40	1042: J-327	20	40	1042: J-327	TRUE
J-79	18: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	48.8	20	40	1042: J-327	20	40	1042: J-327	TRUE
J-V22-I	15: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	76	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V22-III	18: Zone -	2	TRUE	1,500.00	2,000.00	2,587.02	3,087.02	20	54.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-82	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-83	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-84	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	53.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V8-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,816.72	3,116.72	20	60.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-86	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-88	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-89	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-90	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-91	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	73.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-92	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V7-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,172.21	2,672.21	20	65.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-94	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-95	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V3-I-Z1	18: Zone -	2	TRUE	1,500.00	2,000.00	1,632.66	2,132.66	20	80.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V2-II	17: Zone -	2	TRUE	1,500.00	2,000.00	2,131.62	2,631.62	20	51.3	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-98	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.7	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-99	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-100	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66.3	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-101	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-V23-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,046.48	2,546.48	20	70.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-103	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.1	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-104	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V12-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,361.30	2,861.30	20	67.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-106	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V5-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	69.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-108	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V6-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,383.08	2,883.08	20	61.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-110	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-111	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	77.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-112	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-113	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	74.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V5-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,434.56	2,934.56	20	73.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-115	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-116	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	68.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V6-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,383.08	2,883.08	20	70.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-119	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-120	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.9	20	46.3	285: J-171	20	40.1	1042: J-327	TRUE
J-V4-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,779.08	3,279.08	20	75.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-123	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.6	20	46.3	285: J-171	20	40.1	1042: J-327	TRUE
J-124	17: Zone -	2	TRUE	1,500.00	2,000.00	1,979.16	2,479.16	20	50.8	20	46.4	285: J-171	20	40.1	1042: J-327	TRUE
J-V4-I-Z1	17: Zone -	2	TRUE	1,500.00	2,000.00	2,139.54	2,639.54	20	48.5	20	46.3	869: J-283	20	40.1	1042: J-327	TRUE
J-126	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-127	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V4-II-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,779.08	3,279.08	20	73.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-129	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	49.5	20	46.6	869: J-283	20	40.1	1042: J-327	TRUE
J-V2-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,131.62	2,631.62	20	50.5	20	46.6	869: J-283	20	40.1	1042: J-327	TRUE
J-131	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	52.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V3-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	73.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V7-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	61	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-V1-I	17: Zone -	2	TRUE	1,500.00	2,000.00	2,699.88	3,199.88	20	68.4	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-135	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.6	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-136	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	68	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-137	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	70.6	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-138	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	48.8	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-V25-I	17: Zone -	2	TRUE	1,500.00	2,000.00	3,679.00	4,179.00	20	64.6	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-140	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.8	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-V25-II	16: Zone -	2	TRUE	1,500.00	2,000.00	3,679.00	4,179.00	20	48.8	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-143	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.4	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-144	17: Zone -	2	TRUE	1,500.00	2,000.00	3,044.40	3,544.40	20	71.4	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-V24-I	17: Zone -	2	TRUE	1,500.00	2,000.00	3,044.40	3,544.40	20	68.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-146	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	73	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-147	17: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	70.5	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-148	17: Zone -	2	TRUE	1,500.00	2,000.00	2,014.80	2,514.80	20	63.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-149	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	55.6	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-V24-II	17: Zone -	2	TRUE	1,500.00	2,000.00	3,044.40	3,544.40	20	63.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-V11-I-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,826.60	3,326.60	20	52.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V11-III-Z2	18: Zone -	2	TRUE	1,500.00	2,000.00	2,826.60	3,326.60	20	53.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V7-I	18: Zone -	2	TRUE	1,500.00	2,000.00	2,844.42	3,344.42	20	56.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V9-II	18: Zone -	2	TRUE	1,500.00	2,000.00	2,768.98	3,268.98	20	48.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone) (psi)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System) (psi)	Is Fire Flow Run Balanced?
J-V15-ZZ	115: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	77.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-V10-ZZ	18: Zone -	2	TRUE	1,500.00	2,000.00	2,996.88	3,496.88	20	45.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V14-ZZ	18: Zone -	2	TRUE	1,500.00	2,000.00	1,962.36	2,162.36	20	48.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V13-III-ZZ	18: Zone -	2	TRUE	1,500.00	2,000.00	3,232.50	3,732.50	20	46.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V20-I-ZZ	18: Zone -	2	TRUE	1,500.00	2,000.00	2,094.00	2,594.00	20	78.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-161	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-162	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-V15-III-ZZ	18: Zone -	2	TRUE	1,500.00	2,000.00	2,553.36	3,053.36	20	51.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-164	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	78.8	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-165	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.9	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-166	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	48.2	20	46.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-167	15: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	78.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-168	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.7	20	46	869: J-283	20	40.1	1042: J-327	TRUE
J-169	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.4	20	39.8	835: J-281	20	39.8	1042: J-327	TRUE
J-170	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.9	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-171	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.4	20	46	875: J-285	20	40.1	1042: J-327	TRUE
J-172	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	51.4	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-173	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-174	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-175	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	62.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-176	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	69.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-177	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	71.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-178	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-179	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-180	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.1	20	44.7	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-181	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-182	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.3	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-183	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.9	20	44.5	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-184	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78.5	20	44.6	157: J-V19-I	20	40.1	1042: J-327	TRUE
J-185	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	78	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-186	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-187	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.2	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-188	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-189	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	66.2	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-190	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.3	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-191	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-192	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-193	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-194	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-195	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-196	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-197	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-198	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-199	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-200	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-201	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-202	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-203	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-204	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-205	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-212	17: Zone -	2	TRUE	1,500.00	2,000.00	2,569.20	3,069.20	20	67.1	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-213	17: Zone -	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	68.5	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-214	17: Zone -	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	69.5	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-215	17: Zone -	2	TRUE	1,500.00	2,000.00	2,280.12	2,780.12	20	77.2	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-216	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	52.7	20	47.9	1180: J-358	20	40.1	1042: J-327	TRUE
J-217	16: Zone -	2	TRUE	1,500.00	2,000.00	1,939.56	2,439.56	20	66.7	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-218	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	57.1	20	48.8	1180: J-358	20	40.1	1042: J-327	TRUE
J-219	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	59.7	20	48.8	1180: J-358	20	40.1	1042: J-327	TRUE
J-220	16: Zone -	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	66.2	20	49	1180: J-358	20	40.1	1042: J-327	TRUE
J-221	17: Zone -	2	TRUE	1,500.00	2,000.00	2,785.02	3,285.02	20	78.9	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-222	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	68.4	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
Balleria	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	66.2	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-225	17: Zone -	2	TRUE	1,500.00	2,000.00	2,155.38	2,655.38	20	78.6	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-226	17: Zone -	2	TRUE	1,500.00	2,000.00	2,353.38	2,853.38	20	85.4	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-227	17: Zone -	2	TRUE	1,500.00	2,000.00	2,311.80	2,811.80	20	72.4	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-228	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	60	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-229	16: Zone -	2	TRUE	1,500.00	2,000.00	1,699.98	2,199.98	20	75.3	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-230	18: Zone -	2	TRUE	1,500.00	2,000.00	2,391.00	2,891.00	20	61	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-232	17: Zone -	2	TRUE	1,500.00	2,000.00	1,995.00	2,495.00	20	78.6	20	45.2	978: J-317	20	40.1	1042: J-327	TRUE
J-233	17: Zone -	2	TRUE	1,500.00	2,000.00	2,309.82	2,809.82	20	78.5	20	45.2	978: J-317	20	40.1	1042: J-327	TRUE
J-234	17: Zone -	2	TRUE	1,500.00	2,000.00	2,193.00	2,693.00	20	44.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-235	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	68.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
DZ-South	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.7	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
DZ-North	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	80.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-238	16: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	56.9	20	49.1	1218: J-365	20	40.1	1042: J-327	TRUE
J-239	16: Zone -	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	59.3	20	48.9	1180: J-358	20	40.1	1042: J-327	TRUE
J-240	16: Zone -	2	TRUE	1,500.00	2,000.00	2,452.38	2,952.38	20	63.2	20	48.9	1180: J-358	20	40.1	1042: J-327	TRUE
J-241	15: Zone -	2	TRUE	1,500.00	2,000.00	2,448.42	2,948.42	20	37.1	20	45.4	811: J-271	20	40.1	1042: J-327	TRUE
J-242	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	57.5	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-243	16: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	69.6	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-244	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	53.6	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-245	16: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	63.4	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-246	15: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	47.5	20	45.4	811: J-271	20	40.1	1042: J-327	TRUE
J-247	16: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50.4	20	49.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-248	16: Zone -	2	TRUE	1,500.00	2,000.00	2,137.56	2,637.56	20	49.7	20	48.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-249	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	80.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-250	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	69	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-251	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	57.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-252	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	70.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-253	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	59.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-254	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	49.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-255	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	50	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-256	18: Zone -	2	TRUE	1,500.00	2,000.00	1,814.82	2,314.82	20	59.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-257	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	71.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-258	18: Zone -	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	45.7	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-259	17: Zone -	2	TRUE	1,500.00	2,000.00	1,555.38	2,055.38	20	57.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-260	18: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	56.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-261	18: Zone -	2	TRUE	1,500.00	2,000.00	2,444.46	2,944.46	20	55.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-262	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	56.1	20	46	777: J-259	20	40.1	1042: J-327	TRUE
J-265	17: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	61.4	20	46.1	777: J-259	20	40.1	1042: J-327	TRUE
J-266	17: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	61.4	20	46.1	777: J-259	20	40.1	1042: J-327	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Available) (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-267	17: Zone -	2	TRUE	2,000.00	2,444.46	2,944.46	20	63	20	46.2	777: J-269	20	40.1	1042: J-327	TRUE
J-268	17: Zone -	2	TRUE	2,000.00	2,759.28	3,259.28	20	72	20	46.3	777: J-269	20	40.1	1042: J-327	TRUE
J-269	17: Zone -	2	TRUE	2,000.00	3,074.10	3,574.10	20	67.2	20	46.4	777: J-269	20	40.1	1042: J-327	TRUE
J-270	17: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	58	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-271	15: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	29.4	20	33.9	1233: J-368	20	33.9	1042: J-327	TRUE
J-272	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	53.3	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-274	16: Zone -	2	TRUE	2,000.00	1,699.98	2,199.98	20	72	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-275	16: Zone -	2	TRUE	2,000.00	1,699.98	2,199.98	20	65.9	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-276	16: Zone -	2	TRUE	2,000.00	1,699.98	2,199.98	20	81.6	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-277	16: Zone -	2	TRUE	2,000.00	1,699.98	2,199.98	20	44.3	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-278	17: Zone -	2	TRUE	2,000.00	1,814.82	2,314.82	20	70.3	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-279	17: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	39.3	20	44.6	157: J-191	20	40.1	1042: J-327	TRUE
J-280	17: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	76.9	20	46	285: J-171	20	40.1	1042: J-327	TRUE
J-281	15: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	44.7	20	46	157: J-191	20	40.1	1042: J-327	TRUE
J-283	17: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	78.5	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-284	18: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	41	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-285	17: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	40.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-286	18: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	73.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-287	18: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	76.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-288	18: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	71.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-289	18: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	82.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-290	18: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	61.2	20	47.2	285: J-171	20	40.1	1042: J-327	TRUE
J-291	17: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	55	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-292	17: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	49.1	20	47	285: J-171	20	40.1	1042: J-327	TRUE
J-293	17: Zone -	2	TRUE	2,000.00	1,814.82	2,314.82	20	55.8	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-294	17: Zone -	2	TRUE	2,000.00	1,814.82	2,314.82	20	82.3	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-295	17: Zone -	2	TRUE	2,000.00	1,814.82	2,314.82	20	51	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-296	18: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	82.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-297	18: Zone -	2	TRUE	2,000.00	1,814.82	2,314.82	20	84	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-298	18: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	57.1	20	49.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-299	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	71.9	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-300	16: Zone -	2	TRUE	2,000.00	2,014.80	2,514.80	20	55.2	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-301	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	57	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-302	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	58.6	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-303	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	56.7	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-304	16: Zone -	2	TRUE	2,000.00	2,759.28	3,259.28	20	64.1	20	50	1180: J-358	20	40.1	1042: J-327	TRUE
J-305	16: Zone -	2	TRUE	2,000.00	2,759.28	3,259.28	20	68.5	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-306	17: Zone -	2	TRUE	2,000.00	1,913.82	2,413.82	20	70.6	20	46.7	285: J-171	20	40.1	1042: J-327	TRUE
J-307	17: Zone -	2	TRUE	2,000.00	1,979.16	2,479.16	20	66.6	20	46.7	285: J-171	20	40.1	1042: J-327	TRUE
J-308	17: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	59.3	20	46.9	285: J-171	20	40.1	1042: J-327	TRUE
J-309	17: Zone -	2	TRUE	2,000.00	2,000.00	2,000.00	20	57	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-310	17: Zone -	2	TRUE	2,000.00	1,979.16	2,479.16	20	52	20	46.5	285: J-171	20	40.1	1042: J-327	TRUE
J-311	17: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	55.3	20	49.7	1180: J-358	20	40.1	1042: J-327	TRUE
J-312	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	50.3	20	50.2	1180: J-358	20	40.1	1042: J-327	TRUE
J-313	16: Zone -	2	TRUE	2,000.00	2,129.64	2,629.64	20	72.8	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-314	17: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	79.9	20	47.1	285: J-171	20	40.1	1042: J-327	TRUE
J-315	17: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	72.3	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-316	17: Zone -	2	TRUE	2,000.00	1,500.00	2,000.00	20	45.1	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-317	17: Zone -	2	TRUE	2,000.00	2,391.00	2,891.00	20		20			20		1042: J-327	TRUE

Fire Flow Report

Label	Zone	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Calculated Minimum Zone Pressure (psi)	Junction w/Minimum Pressure (Zone)	Pressure (System Lower Limit) (psi)	Pressure (Calculated System Lower Limit) (psi)	Junction w/Minimum Pressure (System)	Is Fire Flow Run Balanced?
J-318	17: Zone -	2	TRUE	1,500.00	2,000.00	2,759.28	3,259.28	20	47.8	20	46.3	978: J-317	20	40.1	1042: J-327	TRUE
J-322	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.8	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-323	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.1	20	40.1	835: J-281	20	40.1	835: J-281	TRUE
J-324	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	40.4	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-325	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-327	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	39.9	20	40.4	835: J-281	20	40.4	835: J-281	TRUE
J-328	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.8	20	44.6	157: J-V19-1	20	40.1	1042: J-327	TRUE
J-329	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.8	20	44.6	157: J-V19-1	20	40.1	1042: J-327	TRUE
J-330	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.9	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-333	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	65.2	20	47	777: J-259	20	40.1	1042: J-327	TRUE
J-334	17: Zone -	2	TRUE	1,500.00	2,000.00	1,840.56	2,340.56	20	49.4	20	45.9	777: J-259	20	40.1	1042: J-327	TRUE
J-335	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.9	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-336	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	82.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-337	115: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.7	20	44.6	157: J-V19-1	20	40.1	1042: J-327	TRUE
J-338	15: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	70.2	20	44.6	157: J-V19-1	20	40.1	1042: J-327	TRUE
J-341	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-342	18: Zone -	2	TRUE	1,500.00	2,000.00	2,129.64	2,629.64	20	42.7	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-346	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.8	20	45.7	978: J-317	20	40.1	1042: J-327	TRUE
J-347	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	75.1	20	45.7	978: J-317	20	40.1	1042: J-327	TRUE
J-348	18: Zone -	2	TRUE	1,500.00	2,000.00	1,896.00	2,396.00	20	78.2	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-349	18: Zone -	2	TRUE	1,500.00	2,000.00	2,094.00	2,594.00	20	79	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-350	18: Zone -	2	TRUE	1,500.00	2,000.00	2,094.00	2,594.00	20	80.6	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-352	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.2	20	46.5	777: J-259	20	40.1	1042: J-327	TRUE
J-353	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	56.9	20	46.6	777: J-259	20	40.1	1042: J-327	TRUE
J-354	17: Zone -	2	TRUE	1,500.00	2,000.00	1,931.64	2,431.64	20	55.3	20	46	830: J-279	20	40.1	1042: J-327	TRUE
J-355	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	50.8	20	46	777: J-259	20	40.1	1042: J-327	TRUE
J-356	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	64.3	20	46.2	777: J-259	20	40.1	1042: J-327	TRUE
J-357	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	82.4	20	47.3	285: J-171	20	40.1	1042: J-327	TRUE
J-358	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	44.4	20	49.5	1208: J-363	20	40.1	1042: J-327	TRUE
J-359	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	58.5	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-360	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	65.5	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-361	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.4	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-362	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	76	20	46.8	285: J-171	20	40.1	1042: J-327	TRUE
J-363	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	47.9	20	48.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-364	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	55.4	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-365	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	45.3	20	49.6	1180: J-358	20	40.1	1042: J-327	TRUE
J-370	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	33.9	20	32.8	811: J-271	20	32.8	811: J-271	TRUE
J-371	16: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	59.2	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-372	18: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	60.1	20	50.1	1180: J-358	20	40.1	1042: J-327	TRUE
J-374	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	79.1	20	40.1	1042: J-327	20	40.1	1042: J-327	TRUE
J-376	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	63.5	20	46.7	285: J-171	20	40.1	1042: J-327	TRUE
J-377	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	57.5	20	46.6	285: J-171	20	40.1	1042: J-327	TRUE
J-378	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	54.8	20	46.6	285: J-171	20	40.1	1042: J-327	TRUE
J-378	17: Zone -	2	TRUE	1,500.00	2,000.00	1,500.00	2,000.00	20	46	20	45.9	868: J-283	20	40.1	1042: J-327	TRUE



APPENDIX B
Typical Water Distribution Center Layout

EXHIBIT 5

RECEIVED

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

JEFF HATCH-MILLER - Chairman
WILLIAM A. MUNDELL
MIKE GLEASON
KRISTIN K. MAYES
GARY PIERCE

2007 JAN 31 P 12:02
AZ CORP COMMISSION
DOCUMENT CONTROL



IN THE MATTER OF THE APPLICATION OF
WATER UTILITY OF GREATER TONOPAH,
INC., AN ARIZONA CORPORATION, FOR AN
EXTENSION OF ITS CERTIFICATE OF
CONVENIENCE AND NECESSITY.

DOCKET NO. W-02450A-06-0253

NOTICE OF FILING

Water Utility of Greater Tonopah, Inc. ("WUGT") provides notice of filing of its Analysis of Assured Water Supply.

RESPECTFULLY SUBMITTED this 31st day of September 2006.

ROSHKA DEWULF & PATTEN, PLC

By Timothy J. Sabo
Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original and 13 copies of the foregoing filed this 31st day of January 2007 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

1 Copy of the foregoing hand-delivered/mailed
this 31st day of January 2007 to:

2
3 Lyn Farmer, Esq.
4 Chief Administrative Law Judge
5 Hearing Division
6 Arizona Corporation Commission
7 1200 West Washington
8 Phoenix, Arizona 85007

6 Christopher C. Kempley
7 Chief Counsel, Legal Division
8 Arizona Corporation Commission
9 1200 West Washington
10 Phoenix, Arizona 85007

9 Ernest G. Johnson, Esq.
10 Director, Utilities Division
11 Arizona Corporation Commission
12 1200 West Washington
13 Phoenix, Arizona 85007

12
13 By Mary Appolito
14
15

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

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ARIZONA DEPARTMENT OF WATER RESOURCES
Office of Assured and Adequate Water Supply
 500 North Third Street, Phoenix, Arizona 85004
 Telephone (602) 417-2465
 Fax (602) 417-2467



JANET NAPOLITANO
 Governor

HERB GUENTHER
 Director

ANALYSIS OF ASSURED WATER SUPPLY

March 1, 2005

File Number: 28-401555.0000
Development: Balfarra
Location: Township 2 North, Range 7 West, Sections 23 & 24, and
 Township 2 North, Range 6 West, Sections 19
 Maricopa County, Arizona
 Phoenix AMA
Land Owner: Roman Freeway LP, Harris Freeway LP, Nelson I Freeway LP, Kitzsteiner
 Freeway LP, L & L Freeway LP, L & B Freeway LP, Counts-Ashmann Freeway
 LP, Davis-Condon Freeway LP, Balfarra, LLC, WT Freeway LP, Skinner
 Freeway LP, Chessen Freeway LP, SP Freeway LP, AC Freeway LP, W-O-K
 Freeway LP, Nelson I Freeway LP, Stralmeier PM Freeway LP

The Arizona Department of Water Resources has evaluated the Analysis of Assured Water Supply application for Balfarra pursuant to A.A.C. R12-15-712. The proposed development includes 4,314 single-family residential lots, 881 multifamily residential lots and 334 non-residential acres containing commercial and open space areas, schools, parks and rights-of-way. The water provider will be Water Utility of Greater Tonopah. Conclusions of the review are indicated below based on the assured water supply criteria referenced in A.R.S. § 45-576 and A.A.C. R12-15-701 *et seq.*

- **Physical, Continuous, and Legal Availability of Water for 100 Years**
 On the basis of the hydrologic study submitted and the Department's review, the Department has determined that 3,057 acre-feet per year of groundwater will be physically and continuously available, which equals the applicant's projected demands for the development of 3,057 acre-feet per year. The legal availability of the water is not proven at this time. The development is not located within the current service area of the Water Utility of Greater Tonopah. A portion of the development falls within the Certificate of Convenience and Necessity boundary of the Water Utility of Greater Tonopah. Applications for Certificates of Assured Water Supply that follow the Analysis of Assured Water Supply will need to provide a detailed plan of how water service will be established. This may include use of Type 1 or Type 2 water rights or recovery of long term storage credits to create a new or satellite service area, or extension of existing service area lines to include the proposed development. Individual Notices of Intent to Serve will be required for each application for a Certificate of Assured Water Supply.
- **Adequate Water Quality**
 Adequate water quality has not been demonstrated at this time. The proposed development lies outside the provider's current service area, therefore, no drinking water compliance data are available. No water quality data was submitted with the application.

To provide service in this area, a provider will likely have to construct new wells. The Arizona Department of Environmental Quality will require water quality analyses for new source approval for each well. This requirement of an Analysis of Assured Water Supply will be reevaluated for each application for a Certificate of Assured Water Supply.

- **Consistency with Management Plan for the Phoenix Active Management Area**
The projected demand for the development is consistent with the Third Management Plan for the Phoenix AMA. Balterra will use low water use landscaping and plumbing fixtures will comply with the statewide Low Flow Plumbing Code.
- **Consistency with Management Goal of the Phoenix Active Management Area**
The Assured and Adequate Water Supply Rules (A.A.C. § R12-15-705) allocate a volume of groundwater to each new subdivision in an AMA to allow for the phasing in of renewable supplies. This groundwater allowance may be increased by extinguishing irrigation grandfathered groundwater rights (IGFR). Any groundwater delivery in excess of the groundwater allowance must be met through the direct or indirect use of renewable water supplies (surface water or effluent). Options for demonstrating "consistency with management goal" include: 1) direct use of surface water or effluent; 2) recharge and recovery of surface water or effluent; or 3) membership in the Central Arizona Groundwater Replenishment District (CAGRDR).

The application indicates that the proposed development will enroll the lands of the entire development, including the commercial and open space areas, schools, parks and other non-residential areas, in the CAGRDR to meet this requirement. The membership documents must be executed and recorded before a Certificate of Assured Water Supply will be issued.

Prior to preparing an application for a Certificate of Assured Water Supply for an individual subdivision plat, the Phoenix AMA Office or the Office of Assured Water Supply may be contacted for further guidance.

- **Financial Capability of the Owner to Construct the Necessary Distribution System**
Pursuant to A.A.C. R12-15-707, financial capability will be evaluated by the local platting authority as a part of the process for obtaining a Certificate of Assured Water Supply for each subdivision. The application for a Certificate of Assured Water Supply includes a Verification of Construction Assurance for a Proposed Subdivision form. This form should be signed by the appropriate platting entity to provide evidence of financial capability. This requirement of an assured water supply will be evaluated upon application for a Certificate of Assured Water Supply.

The term of this Analysis of Assured Water Supply is ten years from the date of this letter and may be renewed upon request, subject to approval by the Department. Throughout the term of this determination, the projected demand of this development will be considered when reviewing other requests for assured water supply in the area.

Prior to obtaining plat approval by the local platting authority and approval of the public report by the Department of Real Estate, a Certificate of Assured Water Supply must be obtained for each subdivision plat. The findings of this Analysis of Assured Water Supply may be used to demonstrate that certain requirements for a Certificate have been met. This determination may be invalidated if the development plan or other conditions change prior to filing for a Certificate of Assured Water Supply.

Questions may be directed to the Office of Assured Water Supply at (602) 417-2465.

Mark Frank

Mark Frank, Acting Assistant Director
Water Management Division

cc: Phoenix Active Management Area

ARIZONA CORPORATION COMMISSION

APPLICATION FOR AN EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY

WATER AND/OR SEWER

General Information:

The attached forms have been prepared by the Utilities Division of the Arizona Corporation Commission to assist Applicants filing for an extension to the area covered by an existing Certificate of Convenience and Necessity. The information required in this application corresponds to the provisions of Arizona Revised Statutes Section 40-101 et. seq., and the Arizona Administrative Code R14-2-402.C/R14-2-602.B.

Use of the attached form is suggested, unless, a formal pleading format is used by an attorney. The information requested in this application must be included within the pleading.

Attachment "A" is a sample of a transmittal letter addressed to the Utilities Division Docket Control Center. Please add information to the letter indicating the purpose and reasons for the application. This format should be used unless you are using a Company letterhead. Place this letter at the beginning of the application. Keep this instruction sheet for your information. Do not attach it to the application.

Instructions:

1. Complete the forms accurately and attach all required documents. This will expedite the processing of the application.
2. Complete all the items that apply to your utility. If an item requested does not apply, mark it "Not applicable" or "N/A". If you do not complete an item, processing of your application could be delayed.
3. If the space provided is insufficient, put the information on a separate sheet of paper and label it clearly.
4. If an item is to be filed at a later date, mark the item "to be late filed by" and give the date by which it will be filed.

5. Have the application notarized.
6. Submit an original and ten copies of this application.
7. **NOTICING:** Notice of the application should be provided to all property owners in the proposed extension area, as well as to all customers and property owners in the existing certificated area. If there are fewer than 100 property owners in the extension area and/or customers in the existing area, notice should be mailed to them within 15 days after the application is filed. If there are more than 100 property owners in the extension area and/or customers in the existing area, notice should be given by mail or by publication at least once in a newspaper of general circulation in the service area within 15 days after the application is filed. Proof of notice should be filed with the Commission within 10 days after the notice was mailed or published. Hearings will always be held pursuant to law. The Hearing Officer will specify any additional notice in a Procedural Order. Attached as Attachment "C" is a form of notice to be provided in accordance with the above instruction.
8. If you plan to finance plant through debt (long term loans) or equity (stock issuance) a separate financing application must be made with separate notice to the public. A requirement sheet for filing a financing application will be provided to you at your request.

Filing:

When you have completed the application, mail or deliver it to:

Docket Control Center
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

ARIZONA CORPORATION COMMISSION

**APPLICATION FOR AN EXTENSION OF CERTIFICATE OF CONVENIENCE AND
NECESSITY**

WATER AND/OR SEWER

A. The name, address and telephone number of the Applicant is:

B. The name, address and telephone number of management contact is:

C. List the name, address and telephone number of the operator certified by the Arizona Department of Environmental Quality:

D. List the name, address and telephone number of the attorney for the Applicant:

E. Attach the following documents that apply to you:

1. Certificate of Good Standing (if corporation)

2. Corporate Resolution Authorizing this application (if required by the corporation's Articles of Incorporation)

F. Attach a legal description of the area requested by either **CADASTRAL** (quarter section description) or **Metes and Bounds** survey. References to parcels and docket numbers will not be accepted.

G. Attach a detailed map using the form provided as attachment B. Shade and outline the area requested. Also indicate the present certificated area by using different colors.

H. Attach a current balance sheet and profit and loss statement.

I. Provide the following information:

1. Indicate the estimated number of customers, by class, to be served in the new area in each of the next five years:

Residential:

First Year _____ Second Year _____ Third Year _____ Fourth Year _____

Fifth Year _____

Commercial:

First Year _____ Second Year _____ Third Year _____ Fourth Year _____

Fifth Year _____

Industrial:

First Year _____ Second Year _____ Third Year _____ Fourth Year _____

Fifth Year _____

Irrigation:

First Year _____ Second Year _____ Third Year _____ Fourth Year _____

Fifth Year _____

Other: (specify)

First Year _____ Second Year _____ Third Year _____ Fourth Year _____

Fifth Year _____

2. (WATER ONLY) Indicate the projected annual water consumption, in gallons, for each of the customer classes in the new area for each of the next five years:

Residential:

First Year _____ Second Year _____ Third Year _____

Fourth Year _____ Fifth Year _____

Commercial:

First Year _____ Second Year _____ Third Year _____

Fourth Year _____ Fifth Year _____

Industrial:

First Year _____ Second Year _____ Third Year _____

Fourth Year _____ Fifth Year _____

Irrigation:

First Year _____ Second Year _____ Third Year _____

Fourth Year _____ Fifth Year _____

3. Indicate the total estimated annual operating revenue from the new area for each of the next five years:

First Year _____ Second Year _____ Third Year _____

Fourth Year _____ Fifth Year _____

- **Complete Attachment "D" (Water Use Data Sheet) for the past 13 months**

4. Indicate the total estimated annual operating expenses attributable to the new area for each of the next five years:

First Year _____ Second Year _____ Third Year _____

Fourth Year _____ Fifth Year _____

J. Total estimated cost to construct utility facilities to serve customers in the requested area:

K. Explain method of financing utility facilities (see paragraph 8 of instructions)

L. Estimated starting and completion date of construction of utility facilities:

Starting date _____ Completion date _____

M. Attach the following permits:

1. Franchise from either the City or County for the area requested.
2. Arizona Department of Environmental Quality or designee's approval to construct facilities.
3. Arizona State Land Department approval. (If you are including any State land in your requested area this approval is needed.)
4. U.S. Forest Service approval. (If you are including any U.S. Forest Service land in your requested area this approval is needed.)
5. (WATER ONLY) If the area requested is within an Active Management Area, attach a copy of, either the utility's Designation of an Assured Water Supply, or the developer's Certificate of 100 Year Assured Water Supply issued by the Arizona Department of Water Resources.
 - If the area requested is outside an Active Management Area, attach the developer's Adequacy Statement issued by the Arizona Department of Water Resources if applied for by the developer.

- If the area requested is outside an Active Management Area and the developer does not obtain an Adequacy Statement, provide sufficient detailed information to prove that adequate water exists to provide water to the area requested.

(Signature of Authorized Representative)

(Print or Type Name Here)

(Title)

SUBSCRIBED AND SWORN to before me this ____ day of _____, 20__

NOTARY PUBLIC

My Commission Expires _____

ATTACHMENT "A"

EXAMPLE ONLY

(Company Name)
(Mailing Address)
(City or Town and Zip Code)

(Date)

Docket Control
Arizona Corporation Commission
1200 W. Washington St.
Phoenix, Arizona

Attached is an application by (Name of Company) for (indicate the type of application this is for). The purpose of this application is to (Explain the purpose for and reasons behind the application).

(Type Name Here and Sign)

ATTACHMENT "C"

**PUBLIC NOTICE OF AN APPLICATION FOR AN
EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY
BY [name of Company]**

[Name of Company] has filed with the Arizona Corporation Commission ("Commission") an application for authority for an extension of its Certificate of Convenience and Necessity to provide [specific type of service] service. Our records indicate that you are either currently a customer of [Name of Company] or are a property owner in the proposed extension area. If the application is granted, [name of Company] would be the exclusive provider of [type of service] service to the proposed area. [Name of Company] will be required by the Commission to provide this service under the rates and charges and terms and conditions established by the Commission. The granting of the application would not necessarily prohibit an individual from providing service to themselves from individually owned facilities on their property. The application is available for inspection during regular business hours at the offices of the Commission in [Phoenix at 1200 West Washington Street/Tucson at 400 West Congress, North Building, Room 218], and at [name of Company and address].

The Commission will hold a hearing on this matter. As a property owner, or customer, you may be entitled to intervene in the proceeding. If you do not want to intervene, you may appear at the hearing and make a statement on your own behalf. You may contact the Commission at the address and telephone number listed below for the date and time of the hearing and for more information on intervention. You may not receive any further notice of the proceeding unless requested by you.

If you have any questions or concerns about this application or have any objections to its approval, or wish to make a statement in support of it, you may contact the Consumer Services Section of the Commission at [1200 West Washington Street, Phoenix, Arizona 85007 or call 1-800-222-7000/400 West Congress, North Building, Room 218, Tucson, Arizona 85701 or call 1-800-535-0148].

Other Water Sources in Gallons per Minute →	<u>GPM</u>
Fire Hydrants on System →	Yes No
Total Water Pumped Last 13 Months (Gallons in Thousands) →	

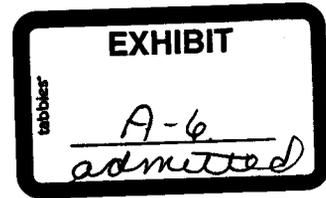
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BEFORE THE ARIZONA CORPORATION COMMISSION
RECEIVED

COMMISSIONERS

MIKE GLEASON - Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

2007 JUN 12 P 4: 14
AZ CORP COMMISSION
DOCKET CONTROL



IN THE MATTER OF THE APPLICATION OF
WATER UTILITY OF GREATER TONOPAH,
INC., AN ARIZONA CORPORATION, FOR AN
EXTENSION OF ITS CERTIFICATE OF
CONVENIENCE AND NECESSITY.

DOCKET NO. W-02450A-06-0253

NOTICE OF FILING

The Water Utility of Greater Tonopah ("Tonopah") files the attached storage calculations which have previously been provided to Staff. The calculations demonstrate that 7 out of 8 Tonopah systems meet Arizona Department of Environmental Quality ("ADEQ") storage requirements, as set out in A.A.C. R18-5-503. The remaining system (Dixie) has well capacity almost 4 times higher than peak month demand. In addition, Tonopah plans to add a 4,000 gallon storage tank to the Dixie system as soon as possible (3-6 months).

In addition, attached is a copy of Tonopah's current depreciation rates, and a breakdown of the projected booster pump costs. This additional information has previously been provided to Staff in response to a question from Staff's Engineering Section.

RESPECTFULLY SUBMITTED this 12th day of June 2007.

ROSHKA DEWULF & PATTEN, PLC

By Timothy J. Sabo
Michael W. Patten
Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

1 Original and 13 copies of the foregoing
filed this 12th day of June 2007 with:

2 Docket Control
3 Arizona Corporation Commission
4 1200 West Washington Street
Phoenix, Arizona 85007

5 Copy of the foregoing hand-delivered/mailed
this 12th day of June 2007 to:

6 Lyn Farmer, Esq.
7 Chief Administrative Law Judge
8 Hearing Division
9 Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

10 Christopher C. Kempley
11 Chief Counsel, Legal Division
12 Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

13 Ernest G. Johnson, Esq.
14 Director, Utilities Division
15 Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

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Water Utility of Greater Buckeye/Water Utility of Greater Tonopah
Storage and Well Capacity Evaluation

A.A.C. R18-5-503 Storage Requirements
Minimum Storage Capacity = Average Daily Demand during Peak Month

Assumed 20 hour/day maximum pump run time

Water System	Actual 2006		Average 2006		Average 2007		Storage Capacity			Well Pump Capacity				
	Average Day Use (gpd)	# Customers	Average Day Use per Customer (gpcd)	Actual Peak Mth Use 2006 (gpd)	# Customers (Peak Month 2006)	Average Day Peak Mth Use per Customer (gpcd)	# Customers (March 2007)	Average Day Use 2007 (gpd)	Average Day Peak Mth Use 2007 (gpd)	Available Storage (gal)	Average Day Demand (gpm)	Peak Month Demand (gpm)	Available Pump Capacity (gpm)	Max # Customers @ Peak Mth Demand
Sunshine	32,989	120	276	53,700	136	395	143	39,476	56,464	100,000	33	47	50	152
Buckeye Ranch	25,910	89	291	67,833	92	737	99	28,821	72,995	150,000	24	61	125	203
Rose View	4,501	16	286	7,935	16	496	17	4,859	8,431	10,000	4	7	30	73
Dixie	6,208	26	235	8,167	26	314	42	9,870	13,192	10,000	8	11	40	153
West Phx 1	345	2	143	1,233	2	617	4	571	2,467	5,000	0	2	20	39
West Phx 7	1,227	6	202	1,933	6	322	6	1,211	1,933	5,000	1	2	20	74
West Phx 4,5,6	4,611	23	199	6,161	23	268	23	4,578	6,161	7,500	4	5	20	90
Garden City	4,123	17	247	6,833	16	427	20	4,948	8,542	45,000	4	7	30	84

Water Utility of Greater Tonopah

WATER USE DATA SHEET

NAME OF COMPANY _____	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. _____	Garden City/Big Horn System PWS #07-037

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	15	101
01/06	15	91
02/06	15	85
03/06	16	117
04/06	16	107
05/06	16	144
06/06	16	205
07/06	16	144
08/06	16	124
09/06	18	147
10/06	18	107
11/06	19	150
12/06	19	84
Total		1,606

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
20,000	1	55-804131	30
25,000	1		

Other Water Sources in Gallons per Minute _____	▶	GPM	-
Fire Hydrants on System _____	▶	Yes	X No
*Total Water Pumped Last 13 Months (Gallons in Thousands) _____	▶	#REF!	

* Well casing damaged in 2005. New well in production. High water usage due to flushing of lines and tank.

WATER USE DATA SHEET

NAME OF COMPANY _____	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. _____	WPE #1 System PWS # N/A

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	2	5
01/06	2	4
02/06	2	4
03/06	2	5
04/06	2	5
05/06	2	6
06/06	2	37
07/06	2	6
08/06	2	5
09/06	3	13
10/06	3	20
11/06	3	11
12/06	4	10
Total		131

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-600209	20

Other Water Sources in Gallons per Minute _____	GPM -
Fire Hydrants on System _____	Yes No X
Total Water Pumped Last 13 Months (Gallons in Thousands) _____	#REF!

* High water usage due to the construction of a new well in 2005.

WATER USE DATA SHEET

NAME OF COMPANY	_____	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No.	_____	Tufts WPE #7 System PWS #07-617

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	6	28
01/06	6	30
02/06	6	26
03/06	6	33
04/06	6	37
05/06	6	37
06/06	6	58
07/06	6	50
08/06	6	36
09/06	7	46
10/06	6	29
11/06	6	34
12/06	6	32
Total		476

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
5,000	1	55-802144	20

Other Water Sources in Gallons per Minute	_____	GPM	-
Fire Hydrants on System	_____	Yes	No X
Total Water Pumped Last 13 Months (Gallons in Thousands)	_____		#REF!

WATER USE DATA SHEET

NAME OF COMPANY	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No.	Rose View System PWS #07-082

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	14	118
01/06	15	139
02/06	15	169
03/06	15	97
04/06	15	120
05/06	15	118
06/06	15	191
07/06	16	246
08/06	16	139
09/06	16	114
10/06	17	107
11/06	17	130
12/06	17	73
Total		1,761

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
10,000	1	55-802143	30

Other Water Sources in Gallons per Minute	→	GPM	-
Fire Hydrants on System	→	Yes	No X
Total Water Pumped Last 13 Months (Gallons in Thousands)	→	#REF!	

WATER USE DATA SHEET

NAME OF COMPANY _____	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. _____	B&D/Buckeye Ranch System PWS #07-618

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	75	336
01/06	76	339
02/06	77	343
03/06	85	394
04/06	85	432
05/06	91	1,117
06/06	92	2,035
07/06	92	1,014
08/06	94	786
09/06	94	865
10/06	94	725
11/06	95	651
12/06	93	756
Total		9,793

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
150,000	1	55-802962	125
5,000	1	55-803811	20

Other Water Sources in Gallons per Minute _____	GPM	-
Fire Hydrants on System _____	Yes	X No
Total Water Pumped Last 13 Months (Gallons in Thousands) _____		#REF!

WATER USE DATA SHEET

NAME OF COMPANY _____	Water Utility of Greater Tonopah, Inc.
ADEQ Public Water System No. _____	Sunshine System PWS #07-071

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SOLD (Thousands)
12/05	92	698
01/06	91	463
02/06	104	744
03/06	107	625
04/06	110	914
05/06	116	1,250
06/06	117	1,170
07/06	116	1,352
08/06	121	818
09/06	136	1,611
10/06	140	1,286
11/06	139	1,023
12/06	137	785
Total		12,739

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127.1667
8347.969
278.2656

STORAGE TANK CAPACITY (Gallons)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)
100,000	1	55-802141	130

Other Water Sources in Gallons per Minute _____	GPM -
Fire Hydrants on System _____	Yes <input checked="" type="checkbox"/> No
Total Water Pumped Last 13 Months (Gallons in Thousands) _____	#REF!

CC&N Extension for Balterra - Breakdown of Booster Pump Station

Description	Build out Entire System	Five Year Entire System	Build out CC&N Expansion Only	Five Year Expansion Only
Pumps and Control	\$1,555,500	\$865,500	\$678,764	\$377,673
Structure Improvement	\$777,750	\$432,750	\$339,382	\$188,836
On-site Power Generation	\$259,250	\$144,250	\$113,127	\$62,945
Totals	\$2,592,500	\$1,442,500	\$1,131,273	\$629,455

COMPANY NAME: Water Utility of Greater Tonopah

CALCULATION OF DEPRECIATION EXPENSE FOR CURRENT YEAR

Acct. No.	DESCRIPTION	Original Cost (1)	Depreciation Percentage (2)	Depreciation Expense (1x2)
301	Organization	5,448	0	0
302	Franchises	1,330	0	0
303	Land and Land Rights	66,651	0	0
304	Structures and Improvements	37,094	5.00%	1,519
305	Collection/Impounding Reservoirs	0		
307	Wells and Springs	151,693	5.00%	7,509
309	Supply Mains	0		
310	Power Generation Equipment	0		
311	Pumping Equipment	242,946	5.00%	11,616
320	Water Treatment Equipment	86,393	5.00%	3,661
330	Distribution Reservoirs and Standpipes	175,360	5.00%	8,744
331	Transmission and Distribution Mains	487,555	5.00%	24,159
333	Services	38,187	5.00%	1,885
334	Meters and Meter Installations	47,062	5.00%	2,103
335	Hydrants	38,210	5.00%	1,903
336	Backflow Prevention Devices	5,432	5.00%	136
339	Other Plant and Misc. Equipment	154	5.00%	4
340	Office Furniture and Equipment	0		
341	Transportation Equipment	0		
342	Stores Equipment	0		
343	Tools, Shop and Garage Equipment	706	5.00%	18
344	Laboratory Equipment	0		
345	Power Operated Equipment	840	5.00%	21
346	Communication Equipment	0		
347	Miscellaneous Equipment	5,087	5.00%	127
348	Other Tangible Plant	0		
	Plus Depreciation on Non-Utility Assets			
	Less: CIAC amortization			(2,194)
	TOTALS	1,390,148		61,211

This amount goes on the Comparative Statement of Income and Expense
Acct. No. 403.

BEFORE THE ARIZONA CORPORATION COMMISSION

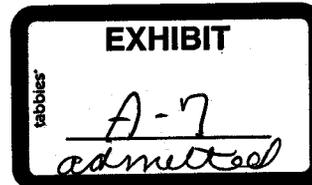
RECEIVED

COMMISSIONERS

- Mike Gleason, Chairman
- William A. Mundell
- Jeff Hatch-Miller
- Kristin K. Mayes
- Gary Pierce

2007 MAY 18 P 4: 03

AZ CORP COMMISSION
DOCKET CONTROL



IN THE MATTER OF THE APPLICATION OF
WATER UTILITY OF GREATER TONOPAH,
INC., AN ARIZONA CORPORATION, FOR AN
EXTENSION OF ITS EXISTING CERTIFICATE
OF CONVENIENCE AND NECESSITY.

Docket No. W-02450A-06-0253

NOTICE OF FILING

The Water Utility of Greater Tonopah ("Tonopah") provides notice of filing of the attached compliance status reports from the Maricopa County Environmental Services Department (MCESD). The reports are for the following systems:

System	PWS No.	Status
Garden City	07-037	Compliant
Dixie	07-030	Compliant
Sunshine	07-071	Compliant
Roseview	07-082	Compliant
B&D	07-618	Complaint
WPE # 6	07-733	Complaint

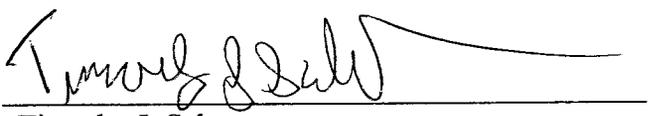
Tonopah has a seventh system, WPE # 7 that is not a community system and is therefore not regulated by MCESD. Therefore, no report can be provided for that system. Thus, all six systems regulated by MCESD are considered "compliant" by MCESD.

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RESPECTFULLY SUBMITTED this 18th day of May 2007.

ROSHKA DEWULF & PATTEN, PLC

By 

Timothy J. Sabo
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original + 13 copies of the foregoing
filed this 18th day of May 2007, with:

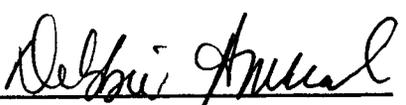
Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing hand-delivered/mailed
this 18th day of May 2007, to:

Lyn A. Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By 

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800



Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: Water Utilities of Tonopah
PWS ID#: 07-037

Type of System: Community Number of POE's: 1 Surface Water: n/a
Number of Service Connections: 16 Population Served: 51

Assigned Monitoring Dates - Initial: 1/1/98 Phase II: 1/1/98 Phase V: 1/1/98

Does the water system have a Certified Operator? Yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last inspection: November 15, 2007

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: 4/11/2007 By: **Duncan Wright** Initials: **dw**
Phone: **(602) 506-5173**

Requested By: Global Fax Number/ Contact: _____ Tracking Number: 1298
Supervisor Initials: GY Date: 4/11/07

Drinking Water Program
John Kolman, Manager

1001 N. Central Ave., Suite 150 Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925



Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: Water Utility of Greater Tonopah – Dixie Water
PWS ID#: 07-030

Type of System: Community Number of POE's: 1 Surface Water: no
Number of Service Connections: 26 Population Served: 81

Assigned Monitoring Dates - Initial: 1/1/99 Phase II: 1/1/99 Phase V: 1/1/99

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? no
Please describe: _____

Date of last inspection: 3/6/07

Does the system have major O & M deficiencies? no
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? no
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: 3/21/07 By: **Laura Moorhead** Initials: _____
Phone: **(602) 506-6631**

Requested By: ACC Fax Number/ Contact: _____ Tracking Number: 1280
Supervisor Initials: GY Date: 3/23/07

Drinking Water Program
John Kolman, Manager

1001 N. Central Ave., Suite 150 Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925



Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT - Sunshine Water Company
PWS ID#: 07-071

Type of System: Community Number of EPDS's: 1 Surface Water: N/A
Number of Service Connections: 117 Population Served: 362

Assigned Monitoring Dates - Initial: 1/1/94 Phase II: 1/1/94 Phase V: 1/1/94

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? No
Please describe: _____

Date of last Sanitary Survey: November 15, 2005

Does the system have major O & M deficiencies? No
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? No
Please describe: System is reporting arsenic levels that may be higher than MCL after further submittal and quarterly averaging. System has submitted a blending plan to address high arsenic levels but has not fulfilled requirements for approval of the plan.

General Public Water System Compliance Status? Compliant

Date of compliance review: March 28, 2006 By: Rob Collins Initials: _____
Phone: (602) 506-0719

Requested By: Dorothy Hains, ACC Fax Number/ Contact: :602 542 0766 Tracking Number: 1284
Supervisor Initials: GY Date: 3/30/07

Drinking Water Program
John Kolman, Manager

1001 N. Central Ave., Suite 150 Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925



Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: WUGT- Rose View Water
PWS ID#: 07-082

Type of System: Community Number of POE's: 1 Surface Water: No
Number of Service Connections: 51 Population Served: 16

Assigned Monitoring Dates - Initial: 1/1/02 Phase II: 1/1/02 Phase V: 1/1/02

Does the water system have a Certified Operator? Robert Garcia: 623-386-4252 x-106

Does the system have major treatment plant deficiencies? N/A
Please describe: _____

Date of last inspection: November 15, 2005

Does the system have major O & M deficiencies? None
Please describe: All deficiencies from 11/15/05 inspection corrected per system letter in file dated: 12/21/05

Does the system have water quality monitoring/reporting deficiencies? Note:
Please describe: System has arsenic levels which will violate the new standard eff 12/31/07

General Public Water System Compliance Status? Compliant

Date of compliance review: 03/21/07 By: Mike Mallette Initials: MKM
Phone: (602) 506-6644

Requested By: Dorothy Haines
Fax Number/ Contact: 602-542-7274 Tracking Number: 1282
Supervisor Initials: GY Date: 3/23/07

Drinking Water Program
John Kolman, Manager

1001 N. Central Ave., Suite 150 Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925



Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: B&D/Buckeye Ranch
PWS ID#: 07-618

Type of System: Community Number of POE's: 2 Surface Water: no

Number of Service Connections: 92 Population Served: 285

Assigned Monitoring Dates – Initial: 1998 Phase II: 1998 Phase V: 1998

Does the water system have a Certified Operator? D. Blain Harold

Does the system have major treatment plant deficiencies? no
Please describe:

Date of last inspection: 2/20/07

Does the system have major O & M deficiencies? minor
Please describe: Buckeye Ranch site booster 2 has leak that needs repair

Does the system have water quality monitoring/reporting deficiencies? no
Please describe:

General Public Water System Compliance Status? Compliant

Date of compliance review: 2/21/07 By: **Laura Moorhead** Initials: _____
Phone: (602) 506-6631

Requested By: post-insp Fax Number/ Contact: _____ Tracking Number: 1268
Supervisor Initials: GY Date: 2/22/07

Drinking Water Program
John Kolman, Manager

1001 N. Central Ave., Suite 150 Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925



Maricopa County
Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

System Name: West Phoenix Estates #6
PWS ID#: 07-733

Type of System: Community Number of POE's: 1 Surface Water: no
Number of Service Connections: 23 Population Served: 71

Assigned Monitoring Dates - Initial: 1/1/02 Phase II: 1/1/02 Phase V: 1/1/02

Does the water system have a Certified Operator? yes

Does the system have major treatment plant deficiencies? no
Please describe: _____

Date of last inspection: August 19, 2005

Does the system have major O & M deficiencies? no
Please describe: _____

Does the system have water quality monitoring/reporting deficiencies? no
Please describe: _____

General Public Water System Compliance Status? **Compliant**

Date of compliance review: 3/20/07 By: **Laura Moorhead** Initials: _____
Phone: **(602) 506-0462**

Requested By: ACC Fax Number/ Contact: _____ Tracking Number: 1281
Supervisor Initials: GY Date: 3/21/07

Drinking Water Program
John Kolman, Manager

1001 N. Central Ave., Suite 150 Phoenix, Arizona 85004-1940 Phone: (602) 506-6666 Fax: (602) 506-6925

FILE COPY

BEFORE THE ARIZONA CORPORATION COMMISSION

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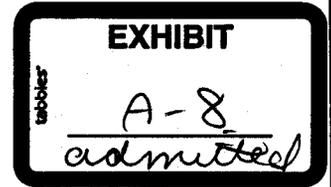
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COMMISSIONERS

MIKE GLEASON – Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

2007 JUL 13 P 4: 04

AZ CORP COMMISSION
DOCKET CONTROL



IN THE MATTER OF THE APPLICATION OF
WATER UTILITY OF GREATER TONOPAH,
INC., AN ARIZONA CORPORATION, FOR AN
EXTENSION OF ITS CERTIFICATE OF
CONVENIENCE AND NECESSITY.

DOCKET NO. W-02450A-06-0253

RESPONSE TO STAFF REPORT

The Water Utility of Greater Tonopah (“Tonopah”) agrees with much of the Staff Report dated June 29, 2007. However, Tonopah believes that minor modifications or clarifications should be made regarding two of Staff’s proposed conditions.

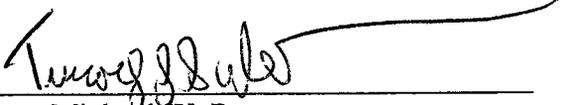
Staff Condition 5. This condition requires that Tonopah obtain an Aquifer Protection Permit (“APP”) for the proposed water treatment plant within 18 months of the final decision in this matter. Based on the currently anticipated schedule, it may be difficult to meet this timeframe. Tonopah requests that this condition be extended to 24 months. In addition, Tonopah requests that this condition be clarified. The APP is for a pond that will be built as part of the water treatment plant. The pond is covered by a Type 3 General Permit issued by the Arizona Department of Environmental Quality (“ADEQ”) under “A.A.C. R18-9-D301. 3.01 General Permit: Lined Impoundments”. This general permit will be the APP for the pond. Under the Type 3 General Permit, ADEQ will issue a discharge authorization letter. See A.A.C. R18-9-A301(A)(3)(c) and A.A.C. R18-9-A301(C)(2). Tonopah requests clarification that this ADEQ discharge authorization letter will satisfy this condition.

ROSKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

1 **Staff Condition 8.** This condition requires that Tonopah file a cross-connection /
2 backflow prevention tariff within 45 days of the final decision in this matter. Tonopah agrees with
3 this condition. However, the Staff Report also states that the tariff “should generally conform to
4 the sample tariff found on the Commission’s web site.” Tonopah’s affiliate, Water Utility of
5 Greater Buckeye (“WUGB”) has a backflow prevention program that has been approved by the
6 Maricopa County Environmental Services Department (“MCESD”). A copy of this program is
7 attached as Exhibit A. This MCESD-approved program is generally similar to Staff’s sample
8 tariff, but does not exactly match the sample tariff. Tonopah’s intent is to prepare a proposed tariff
9 based on the WUGB program. Tonopah requests a clarification indicating that a proposed tariff
10 based on the MCESD-approved backflow prevention program would be acceptable.

11
12 RESPECTFULLY SUBMITTED this 13th day of July 2007.

13
14 ROSKA DEWULF & PATTEN, PLC

15
16 By 

17 Michael W. Patten
18 Timothy J. Sabo
19 One Arizona Center
20 400 East Van Buren Street, Suite 800
21 Phoenix, Arizona 85004

22
23
24 Original and 13 copies of the foregoing
25 filed this 13th day of July 2007 with:

26 Docket Control
27 Arizona Corporation Commission
 1200 West Washington Street
 Phoenix, Arizona 85007

ROSHKA DEWULF & PATTEN, PLC
ONE ARIZONA CENTER
400 EAST VAN BUREN STREET - SUITE 800
PHOENIX, ARIZONA 85004
TELEPHONE NO 602-256-6100
FACSIMILE 602-256-6800

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Copy of the foregoing hand-delivered/mailed
this 13th day of July 2007 to:

Lyn Farmer, Esq.
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Christopher C. Kempley
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ernest G. Johnson, Esq.
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

By *Kristie Arnold*

EXHIBIT A

WATER UTILITY OF GREATER BUCKEYE

Backflow-Prevention Program

Rationale

In accordance with Arizona Administrative Code (AAC) R18-04-115, a public water system shall protect its system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. AAC R14-2-405.B.6 requires that any customer's lines be installed so as to prevent cross-contamination or backflow.

Accordingly, the public water systems of the Water Utility of Greater Buckeye will require backflow-prevention assemblies to be installed and/or retrofitted at the service connection of those establishments where there exists a possibility of contamination caused by backflow through unprotected cross-connections and/or which are not specifically exempted by the subject rule.

In all cases, the need for and the type of backflow prevention assembly will be specified by the water utility, and will be located on the customer's side of the service connection. The approved backflow-prevention device will be acquired, installed, owned, tested and maintained by the customer. The minimum level of backflow protection that is provided to protect a public water system shall be the level recommended in:

Section 7.2 of the Manual of Cross-Connection Control
Ninth Edition, USC-FCCCHR
KAP-200 University Park MC-2531
Los Angeles, California 90089-2531
December 1993 (and no future editions or amendments)

The type of backflow-prevention assembly (BPA) installed will be determined by the relative hazards posed by each customer account in its category. Inspections and testing of installed BPA's must be conducted by a certified backflow tester who shall submit a written report to the utility. All BPA's will be subjected to annual inspections and testing to be performed by a certified backflow tester.

Procedure for Existing Customers

All customer accounts will be reviewed by customer listing and subject to on site surveys as needed, and placed into one of five categories.

Category #1: Animal clinics, car washes, laundries, pest control, some restaurants, etc.
BPA required: **Reduced Pressure Backflow Assembly**

Category #2: Restaurants, schools, medical/dental offices, retail establishments
BPA required: **Reduced Pressure Backflow Assembly or Double Check**

Category #3: Multifamily residences with common plumbing and a master meter
BPA required: **Double Check**

Category #4: Non chemical dispensing irrigation systems and commercial horse farms
BPA required: **Double Check or Vacuum Breaker**

Category #5: Class 1 and 2 fire protection systems
BPA required: **To be determined**

The type of BPA required will depend upon the level of potential contamination. If the potential is low, then a lower grade of BPA may be installed dependant upon the approval of the utility.

Non-Exempt Single Family Residences

If the following conditions exist in services to single family residences, backflow-prevention assemblies will be required:

1. Customer owns a private well and is served additionally by the utility
BPA required: **Double check or Vacuum breaker**
2. Zoned horse and/or animal acreage properties
BPA required: **Double check or Reduced Pressure**
3. Operating a home business whose business is subjected to hazardous materials
BPA required: **Double check or Reduced Pressure**
4. Residential properties where the potential for existing cross connection occurs –
landscape irrigation via reclaimed water
BPA required: **Double check or Reduced Pressure**

Procedure for New Construction

The Utility has sole the discretion to require the installation of a backflow-prevention assembly (BPA) as it deems necessary in order to protect the public water supply. This requirement and type of BPA will be determined at the plan review stage, and may be amended by a Cross-Connection Survey (see Appendix A) completed by the Utility.

Installation and Testing

The following types of notification will be provided to utility customers:

1. Information letter – This letter is for existing and new customers and explains backflow prevention and the need for compliance. See **Appendix B**.
2. Notice to install a backflow-prevention assembly – Initial notice sent to the customer after the utility establishes the customer's requirement to have a BPA determined by the survey results. See **Appendix C**.
3. Second notice to install or test a BPA – Reminder notice of the requirement to install or test. The customer is given notice to comply with this requirement within 45 days. **Appendix D**.
4. Final Notice to install or test a BPA – Final notice to the customer to comply with the requirement of the backflow-prevention program and a determination to disconnect service. See **Appendix E**.
5. Disconnection Notice – Notice to disconnect service with the date of disconnect if customer does not comply with the requirements of the backflow-prevention program. See **Appendix F**.

Termination of Service

All customers who fail to comply with the requirements of the backflow-prevention program will be notified in accordance with AAC R14-2-410 of the termination of their water service.

If service is terminated, service will not be restored until an approved BPA is installed and tested. Re-connection of service is also subject to the fees included in the Utility's approved tariff rate schedule.

Notice

The Backflow-prevention Program is subject to periodic review therefore the procedures may be changed or altered as the utility deems necessary in the protection of public health. All changes shall comply with the current and/or future laws as well as the rules and regulations of the regulatory agencies. Any and all changes in procedure shall be forwarded to the Maricopa County Environmental Services Department for review.

Appendix A

CROSS CONNECTION SURVEY

Date:

Customer:

Water service address:

Account #:

Meter #:

Does the property have a:

- | | | |
|--|------------------------------|-----------------------------|
| Private operating well or other alternate water supply | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| Retention area (pond) supplied by potable water supply | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| Automatic irrigation system or other facility with potential for dispensing chemical contamination | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| Solar energy system | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| Agricultural use or livestock (horses) related activity | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| All commercial business | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| Home business using possible hazardous material | YES <input type="checkbox"/> | NO <input type="checkbox"/> |

If you answered "YES" to any of the above, you are required to **INSTALL** a Backflow-prevention assembly. It must be **tested** at the time of installation and **ANNUALLY** thereafter. Reminder letters will be sent out each year prior to the anniversary date of the previous year's test.

Type of device required:

- Livestock - Double Check Assembly
- All others - Reduced Pressure Assembly

Thank you for your assistance in the protection of your water supply.

The Backflow-prevention program is instituted and enforced to help supply all of our customers with potable water that meets the requirements of the Federal Safe Drinking Water Act.

Appendix B

Backflow-Prevention Information

Dear Customer,

This letter is to inform you the Water Utility of Greater Buckeye will be implementing a backflow-prevention program in your service area.

What is backflow-prevention?

Backflow-prevention protects a public water supply from contamination caused by backflow through unprotected cross-connections. A Backflow-prevention program is a requirement of the Safe Drinking Water Act and AAC R18-4 *et seq.*

What is a Backflow-Prevention Program?

A Backflow-Prevention Program requires the installation and annual testing of backflow-prevention assemblies in all areas considered to be a potential cross-contamination hazard. A public water system shall maintain records of installations and tests performed on backflow-prevention assemblies in its service area. Records shall be retained by the public water system for at least three years and shall be made available for review by the Arizona Department of Environmental Quality (or its designee) upon request.

What is a backflow-prevention assembly device?

A backflow-prevention device is a device that prevents the reversal of flow when pressures change within a distribution system.

Who is Responsible for Acquiring, Installing, Maintaining and Testing a Backflow Prevention Assembly?

The Customer is responsible for acquiring, installing, maintaining and testing an approved BPA. Testing is required annually. The Customer must contact a certified installer in order to have the BPA properly installed. Installation and annual test certificates must be provided to the Utility.

Where is a backflow-prevention assembly installed?

A backflow-prevention assembly shall be installed as close as practicable to the service connection. (Usually just past the water meter on the customer's side).

Who is required to have a backflow-prevention assembly installed?

1. Any residential service connection with livestock on the premises.
2. Any residential service connection with on site irrigation.

3. Any residential service connection with a water supply that is not accepted as an additional source by the public water system or is not approved by ADEQ or its designee. (This source is commonly a private well).
4. All commercial establishments.
5. Any connections considered by ADEQ, MCESD or the Utility to be a hazard.

Who installs the backflow-prevention assemblies?

Installation and testing must be performed by a person who is currently certified as a general tester by the California-Nevada section of the American Water Works Association (CA-NV Section, AWWA), the Arizona State Environmental Technical Training (ASETT) Center, or other certifying authority approved by ADEQ or its designee.

Who will supply the installation and certification information?

Once you have hired a certified tester, the tester will provide the utility with the original certificate of installation and test. We recommend you retain a copy for your records. It is the customer's responsibility to provide proof of test and certification.

The information that must be supplied:

1. Assembly identification number and description,
2. Location
3. Date of test
4. Description of repairs and recommendations for repairs made by the tester, and
5. The tester's name and certificate number.

****Important Information****

In accordance with the Federal Safe Drinking Water Act Amendments of 1986 and the provisions of the Arizona Administrative Code R18-4-115, failure to comply with this requirement shall be sufficient cause for termination of your water service. Upon request the utility can provide you with a copy of the Arizona Administrative Code R18-4-115.

We appreciate your cooperation in this very important matter. If you have any questions feel free to contact our office at 623-580-9600.

Appendix C

NOTICE TO INSTALL AND TEST BACKFLOW PREVENTION ASSEMBLY

Date:

Customer:

Water service address:

Account #:

The Arizona Administrative Code, R18-04-115, as adopted by the Arizona Department of Environmental Quality for Cross-Connection requires mandatory installation and periodic testing of backflow assemblies, where it is determined that backflow is likely to occur.

In accordance with the Federal Safe Drinking Water Act Amendments of 1986 and the provisions of the R18-04-115, you are required to install and annually test one of the following approved backflow-prevention assemblies for the purpose of protecting the potable water supply from substances which could endanger public health.

- Double Check Valve Assembly
- Reduced Pressure Principal Device
- Pressure Vacuum Breaker

Reason for installation:

A list of reduced pressure principle backflow prevention assemblies that have been evaluated and approved by the Foundation for Cross-Connection Control and Hydraulic Research of the University of California should be available through certified plumbers. These assemblies have been adopted and approved by the State of Arizona and must be installed within 60 days from the date of this letter.

Backflow-prevention assemblies are to be purchased, installed, maintained and annually tested at the customer's expense. The backflow prevention assemblies must be **tested by a Certified Backflow-prevention Assembly Tester at the time of installation.** Once the assembly has been installed and tested you should receive a copy of the certification. The Certified Tester will need to forward the original test report to our office.

If you should have any questions or require further information, please contact the main office at 623-580-9600.

Thank you for your cooperation in this very important matter.

Appendix D

SECOND NOTICE

NOTICE TO INSTALL/ TEST BACKFLOW PREVENTION ASSEMBLY

Date:

Customer:

Water service address:

Account #

Dear Customer,

We recently wrote to you explaining the regulatory requirements for installing and /or testing your backflow-prevention assembly. Installing and /or testing your BFP assembly are of the utmost importance as it is in place to protect the public water supply from possible contamination. We previously sent you a notice to comply with the requirements of the Arizona Administrative Code R18-4-115 regarding the requirements of backflow-prevention.

If you have had your backflow-prevention assembly installed and / or tested, please forward the report to:

Water Utility of Greater Buckeye
21410 N. 19th Avenue Suite 201
Phoenix, AZ 85027

If you have not complied with the requirements, please call us with the approximate date you expect to have your BFP assembly tested. You are required to comply with this requirement within 45 days of this notice.

If you should have any questions or require further information, please contact our office at 623-580-9600.

Thank you for cooperation in this very important matter.

Appendix E

FINAL NOTICE

TO INSTALL AND TEST BACKFLOW PREVENTION ASSEMBLY

Date:

Customer:

Water service address:

Account #

Dear Customer,

We recently wrote to you explaining the regulatory requirements for installing and /or testing your backflow-prevention assembly. Installing and /or testing your BFP assembly are of the utmost importance as it is in place to protect the public water supply from contamination. We previously sent you 2 reminder notices to comply with the requirements of the Arizona Administrative Code R18-4-115 regarding the requirements of backflow-prevention.

If you have had your backflow-prevention assembly installed and / or tested, please forward the report to:

**Water Utility of Greater Buckeye
21410 N. 19th Avenue Suite 201
Phoenix, AZ 85027**

If you have not complied with the requirements, please call us with the approximate date you expect to have your BFP assembly tested. You are required to comply with this requirement within 15 days of this notice

Failure to comply with the requirements of the Backflow-prevention program will result in a disconnection of your service.

If you should have any questions or require further information, please contact our office at 623-580-9600.

Thank you for your cooperation in this very important matter.

Appendix F

DISCONNECT NOTICE

FAILURE TO INSTALL AND/OR TEST BACKFLOW PREVENTION
ASSEMBLY

Date:

Customer:

Water service address:

Account #

Dear Customer,

We recently wrote to you explaining the regulatory requirements for installing and /or testing your backflow-prevention assembly. Installing and /or testing your BFP assembly are of the utmost importance as it is in place to protect the public water supply from contamination. We previously sent you 3 reminder notices to comply with the requirements of the Arizona Administrative Code R18-4-115 regarding the requirements of backflow-prevention.

Our records indicate you have failed to comply with the requirements of the backflow-prevention program.

Your service will be **DISCONNECTED** on:

If you have had your backflow-prevention assembly installed and / or tested, please forward the report to:

Water Utility Of Greater Buckeye
21410 N. 19th Avenue Suite 201
Phoenix, AZ 85027

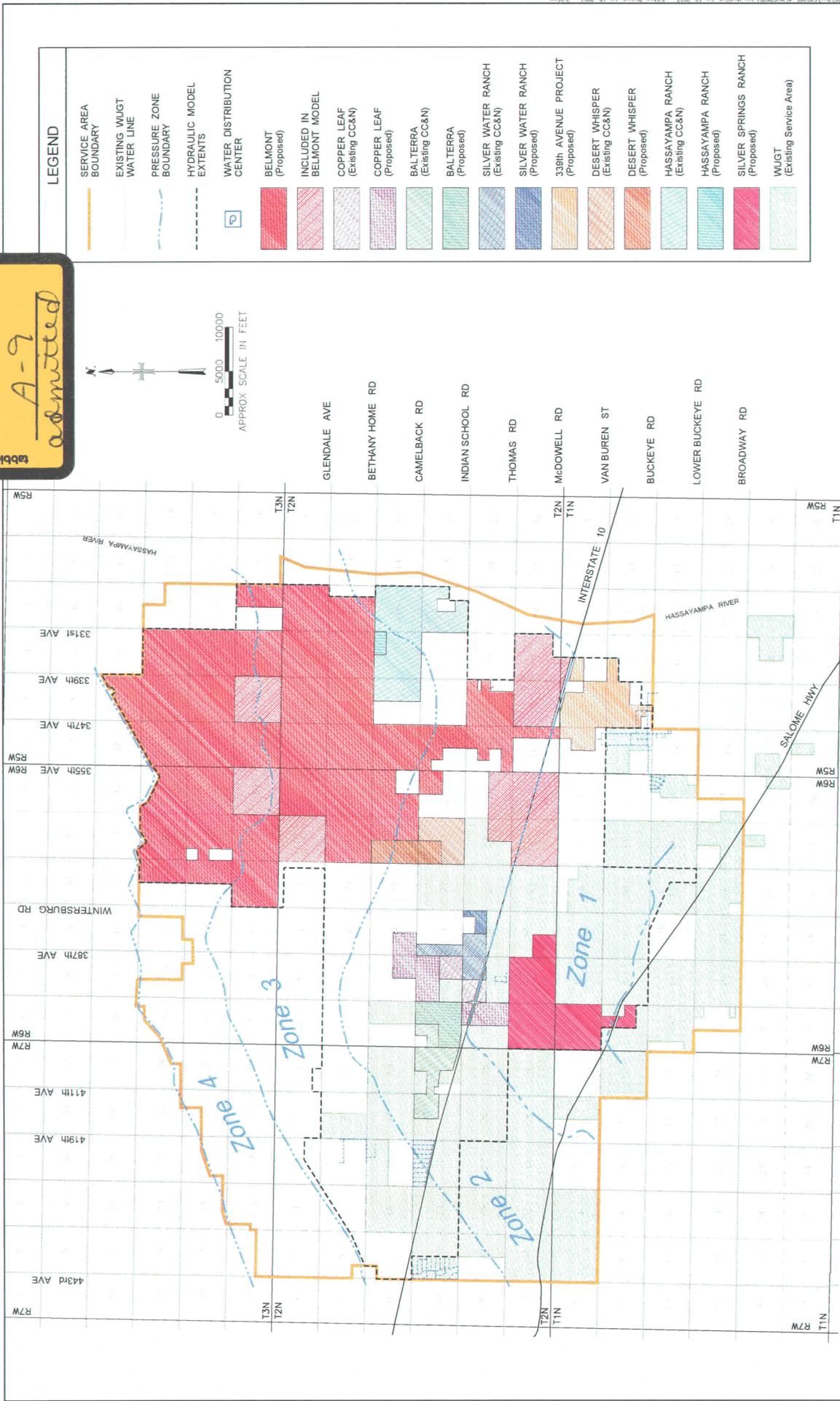
If your backflow-prevention assembly is scheduled for testing, please have the company performing the testing contact our office at the numbers listed below to avoid any service interruption.

If you should have any questions or require further information, please contact our office at 623-580-9600.

Thank you for your cooperation in this very important matter.

EXHIBIT 9

EXHIBIT
A-9
admitted



DESIGNED BY: [] DATE: []		DSWA Project No: 0007200 Date: MAY 2007	
DRAWN BY: [] DATE: []		EXHIBIT 1.1	
CHECKED BY: [] DATE: []		PROPOSED SERVICE AREAS LOCATION MAP SHOWING PRESSURE ZONES	
REVISIONS: [] DESCRIPTION: []		GLOBAL WATER WATER UTILITY OF GREATER TONOPAH	
DESIGNED BY: [] DATE: []		GLOBAL WATER RELIABLE • RESPONSIBLE • REFINABLE	
DRAWN BY: [] DATE: []		DSWA DAMON S. WILLIAMS ASSOCIATES, LLC	
CHECKED BY: [] DATE: []		CHC	



GLOBAL WATER
RELIABLE • RENEWABLE • REUSABLE

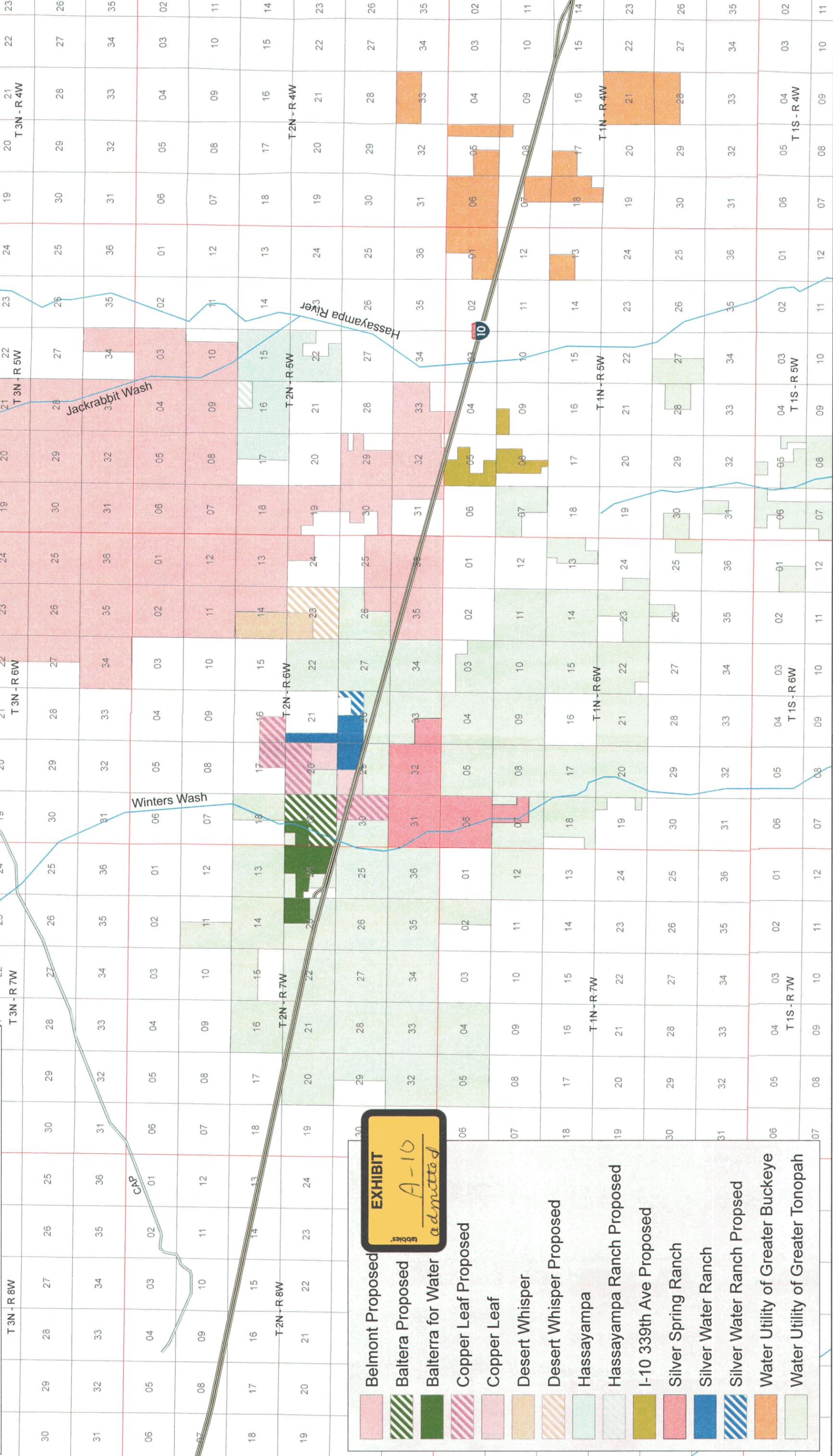


EXHIBIT
A-10
admitted

- Belmont Proposed
- Baltera Proposed
- Baltera for Water
- Copper Leaf Proposed
- Copper Leaf
- Desert Whisper
- Desert Whisper Proposed
- Hassayampa
- Hassayampa Ranch Proposed
- I-10 339th Ave Proposed
- Silver Spring Ranch
- Silver Water Ranch
- Silver Water Ranch Proposed
- Water Utility of Greater Buckeye
- Water Utility of Greater Tonopah

Water System Locations

EXHIBIT

A-11
admitted



LEGAL FILE COPY

MEMORANDUM

RECEIVED

2007 JUN 29 P 12:18

AZ CORP COMMISSION
DOCKET CONTROL

TO: Docket Control

FROM: Ernest G. Johnson *EGJ*
Director
Utilities Division

Date: June 29, 2005

RE: STAFF REPORT FOR THE APPLICATION FOR THE APPLICATION OF
THE WATER UTILITY OF GREATER TONOPAH, INC. FOR AN
EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY
(DOCKET NO. W-02450A-06-0253)

Attached is the Staff Report for the Water Utility of Greater Tonopah, Inc. application for approval to extend its Certificate of Convenience and Necessity. Staff recommends approval with conditions.

EGJ:LAJ:tdp

Originator: Linda A. Jaress

RECEIVED

JUN 29 2007

ARIZ. CORP. COMMISSION



Service List for: Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253

Mr. Tim Sabo
Roshka, Dewulf & Patten
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Mr. Christopher C. Kempley
Chief, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ms. Lyn Farmer
Chief, Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

STAFF REPORT
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

WATER UTILITY OF GREATER TONOPAH, INC.
DOCKET NO. W-02450A-06-0253

APPLICATION FOR EXTENSION
OF CERTIFICATE OF
CONVENIENCE & NECESSITY

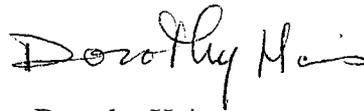
JUNE 29, 2007

STAFF ACKNOWLEDGMENT

The Staff Report for Water Utility of Greater Tonopah, Inc., Docket No. W-02450A-06-0253 was prepared by the Staff members signed below. Linda Jaress prepared the Staff Report and Dorothy Hains prepared the Engineering Report.



Linda A. Jaress
Executive Consultant



Dorothy Hains
Utilities Engineer

EXECUTIVE SUMMARY
WATER UTILITY OF GREATER TONOPAH, INC.
FOR AN EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY
DOCKET NO. W-02450A-06-0253

On April 14, 2006, the Water Utility of Greater Tonopah, Inc. ("WUGT" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for the extension of its Certificate of Convenience and Necessity ("CC&N") to a ¾ section area which is part of a development known as Balterra.

WUGT operates eight individual water systems of varying sizes. Staff analyzed data regarding the systems in the 2006 Annual Report along with updated information provided by WUGT and concluded that the Dixie System, which serves 33 customers, has inadequate production and storage. Arsenic levels in the WUGT's systems, except the Dixie and the Garden City systems, exceed the new arsenic standard of 10 parts per billion. However, all the systems are in compliance with Maricopa County Environmental Services Department ("MCESD"), Arizona Department of Environmental Quality ("ADEQ") and Arizona Department of Water Resources ("ADWR").

WUGT proposes to install a new water system which would include two wells, a water treatment plant, a reservoir system, booster pump stations and a distribution system to serve the projected 1,209 customers in the extension area along with the rest of the Balterra development. The Company's estimate of the total cost of plant to serve the extension area during the first five years of operation is \$4,621,867. Staff concludes that the costs of the plant to serve the extension area estimated by the Company are reasonable.

1. WUGT should resolve the storage and production deficiencies in the Dixie System before entering any new Main Extension Agreements or CC&N extensions involving the Dixie System.
2. WUGT should file by December 31, 2007, evidence in Docket Control that the arsenic removal plans for the systems have been approved by MCESD.
3. WUGT should file by March 31, 2008, with Docket Control, documents showing that its systems are in compliance with the new arsenic standard.
4. WUGT should file within two years of the decision in this docket, a copy of the Certificates of Approval of Construction for its water source, treatment plant, storage tanks and water distribution system for the proposed water system issued by MCESD or ADEQ.
5. WUGT should file within eighteen months of the effective date of the final decision in this docket with Docket Control a copy of the APP issued by ADEQ for the proposed water treatment plant.

6. WUGT should file with Docket Control, as a compliance item in this docket, by July 31, 2009, a copy of ADWR's Designation of Assured Water Supply stating that there is adequate water for the area being requested and/or a copy of the Certificate of Assured Water Supply for the requested area.
7. WUGT should file with Docket Control, as a compliance item in this docket, within one year of the decision, a copy of the franchise agreement with the city or county in which the extension area is located.
8. WUGT should file a Cross Connection/Backflow Tariff with the Commission's Docket Control within 45 days of the effective date of the final decision in this matter for Staff's review and certification.
9. The decision approving this extension should be deemed null and void after due process if WUGT does not comply with the above requirements in the time ordered.

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Introduction

On April 14, 2006, the Water Utility of Greater Tonopah, Inc. ("WUGT" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for the extension of its Certificate of Convenience and Necessity ("CC&N") to a $\frac{3}{4}$ section area which is part of a development known as Balterra. The Company is located west of Phoenix and serves various locations between 331st Avenue and 555th Avenue and between Elliot Road and Glendale Avenue. A map and legal description of the extension area is attached as Exhibit 1. According to the 2006 annual report to the Commission, the Company serves 332 customers.

The extension area is located in the vicinity of 395th Avenue and Camelback in Maricopa County. The largest portion of the Balterra development is within WUGT's current service territory. The extension area is contiguous to the rest of the Balterra development. At build-out, the Balterra development is expected to encompass approximately 6,100 residential units. The development will receive wastewater service from Balterra Sewer Corporation, a utility independent from WUGT, which received its CC&N in Decision No. 68742, dated June 5, 2006.

WUGT operates under rates and charges effective January 1, 2002. The Company was formed by the combination of several other water companies over many years which accounts for its eight distinct water systems. During 2006, the Company was acquired by Global Water Resources, L.L.C. ("Global"). Global has several years of experience owning and operating Arizona water and wastewater companies and employs certified operators to operate them.

The Company is a corporation in good standing with the Corporations Division of the Commission and has no outstanding compliance issues in the records of the Compliance Section of the Utilities Division.

Existing Water Systems

WUGT operates eight individual water systems. The smallest system, WPE #1, serves 2 customers while the largest system, the Sunshine System serves 137 customers. Attached as Exhibit 2 is Staff's Engineering Report which further describes the current and proposed systems and the estimated costs of the extension. Staff analyzed data from the 2006 Annual Report and updated information provided by WUGT and concluded that the Dixie System, which serves 33 customers, has inadequate production and storage.

Staff recommends that WUGT take action to correct the production and storage problem. Such action could include the installation of a well, a storage tank, a combination of the two, or interconnection with another system. Staff recommends that the Commission require WUGT to resolve the storage and production deficiencies in the Dixie System before allowing any new Main Extension Agreements or CC&N extensions involving the Dixie System.

Proposed Water System

WUGT proposes to install a new water system which would include two wells, a water treatment plant, a reservoir system, booster pump stations and a distribution system to serve the projected 1,209 customers in the extension area along with the rest of the Balterra development. WUGT expects that during the initial phase of the water system construction one well and a one million gallon storage tank will be installed.

The Company's estimate of the total cost of plant to serve the extension area during the first five years of operation is \$4,621,867. Staff concludes that the costs of the plant to serve the extension area estimated by the Company are reasonable.

Maricopa County Environmental Services Department

The Maricopa County Environmental Services Department ("MCESD") has determined that all WUGT's regulated systems are delivering water that meets the water quality standards set forth in the Arizona Administrative Code, Title 18, Chapter 4. Two of the systems are not regulated by MCESD due to their small size.

Arsenic levels in the WUGT's systems, except the Dixie and the Garden City systems, exceed the new arsenic standard of 10 parts per billion. The compliance date for meeting the arsenic standard is December 31, 2007. MCESD has issued an Approval to Construct for the arsenic removal plant for one system, the WPE #6 system. Staff recommends the WUGT file by December 31, 2007, evidence in Docket Control that the arsenic removal plans for its systems have been approved by MCESD. Staff further recommends that the Company file by March 31, 2008, documents showing that its systems are in compliance with the new arsenic standard.

Staff also recommends that WUGT file with Docket Control Section a copy of the Certificates of Approval of Construction for its water source, treatment plant, storage tanks and water distribution system for the proposed water system issued by MCESD or the Arizona Department of Environmental Quality ("ADEQ") within two years of the effective date of the final decision issued in this docket.

WUGT plans to treat the water using an Arsenic Activated Alumina system and granular ferric hydroxide. The backwash water from this treatment plant will be treated by a reverse osmosis unit to reduce the waste water volume before disposal. The final waste water will be disposed of in an on-site, lined, 0.6 acre evaporation pond. An Aquifer Protection Permit ("APP") will be required for this waste water disposal system. Staff recommends that WUGT file with Docket Control a copy of the APP issued by ADEQ for the proposed treatment plant within eighteen months of the effective date of the final decision in this docket.

Arizona Department of Water Resources

WUGT is located in the Phoenix Active Management Area ("AMA"), as designated by the Arizona Department of Water Resources ("ADWR"). ADWR has indicated that the Company is in compliance with the Phoenix AMA requirements. WUGT intends to apply to ADWR for a Designation of Assured Water Supply. Staff recommends that WUGT file with Docket Control, as a compliance item in this docket, a copy of ADWR's Designation of Assured Water Supply stating that there is adequate water for the area being requested and/or a copy of the Certificate of Assured Water Supply for the requested area by July 31, 2009.

Cross Connection/Backflow Tariff

WUGT's tariff does not contain provisions regarding cross connections or backflow. Staff recommends that WUGT file a Cross Connection/Backflow Tariff with the Commission's Docket Control within 45 days of the effective date of the final decision in this matter for Staff's review and certification. The tariff should generally conform to the sample tariff found on the Commission's web site at www.azcc.gov.

Conclusions and Recommendations

Based upon the experience operating water and wastewater utilities in Arizona of WUGT and its affiliates and their compliance record with Arizona regulatory agencies, Staff believes that WUGT is a fit and proper entity to serve the extension area. Based upon the documented need for service, Staff also believes it is in the public interest for WUGT to serve the extension area. Staff recommends approval of the requested CC&N extension.

Staff also recommends that the Company be ordered to complete the following:

1. WUGT should resolve the storage and production deficiencies in the Dixie System before allowing any new Main Extension Agreements or CC&N extensions involving the Dixie System.
2. WUGT should file by December 31, 2007, evidence in Docket Control, as a compliance item in this docket, that the arsenic removal plans for the systems have been approved by MCESD.
3. WUGT should file by March 31, 2008, with Docket Control, as a compliance item in this docket, documents showing that its systems are in compliance with the new arsenic standard.
4. WUGT should file with Docket Control, as a compliance item in this docket, within two years of the decision in this docket, a copy of the Certificates of Approval of Construction for its water source, treatment plant, storage tanks and water distribution system for the proposed water system issued by MCESD or ADEQ.

5. WUGT should file within eighteen months of the effective date of the final decision in this docket with Docket Control, as a compliance item in this docket, a copy of the APP issued by ADEQ for the proposed treatment plant.
6. WUGT should file with Docket Control, as a compliance item in this docket, by July 31, 2009, a copy of ADWR's Designation of Assured Water Supply stating that there is adequate water for the area being requested and/or a copy of the Certificate of Assured Water Supply for the requested area.
7. WUGT should file with Docket Control as a compliance item in this docket, within one year of the decision, a copy of the franchise agreement with the city or county in which the extension area is located.
8. Staff recommends that WUGT file a Cross Connection/Backflow Tariff with the Commission's Docket Control, as a compliance item in this docket, within 45 days of the effective date of the final decision in this matter for Staff's review and certification.
9. The decision approving this extension should be deemed null and void after due process if WUGT does not comply with the above requirements in the time ordered.

MEMORANDUM

TO: Linda Jaress
Executive Consultant III
Utilities Division

FROM: Barb Wells 
Information Technology Specialist
Utilities Division

THRU: Del Smith 
Engineering Supervisor
Utilities Division

DATE: May 10, 2006

RE: **WATER UTILITY OF GREATER TONOPAH, INC. (DOCKET NO. W-02450A-06-0253)**

The area requested by Tonopah for an extension has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached is a copy of the map for your files.

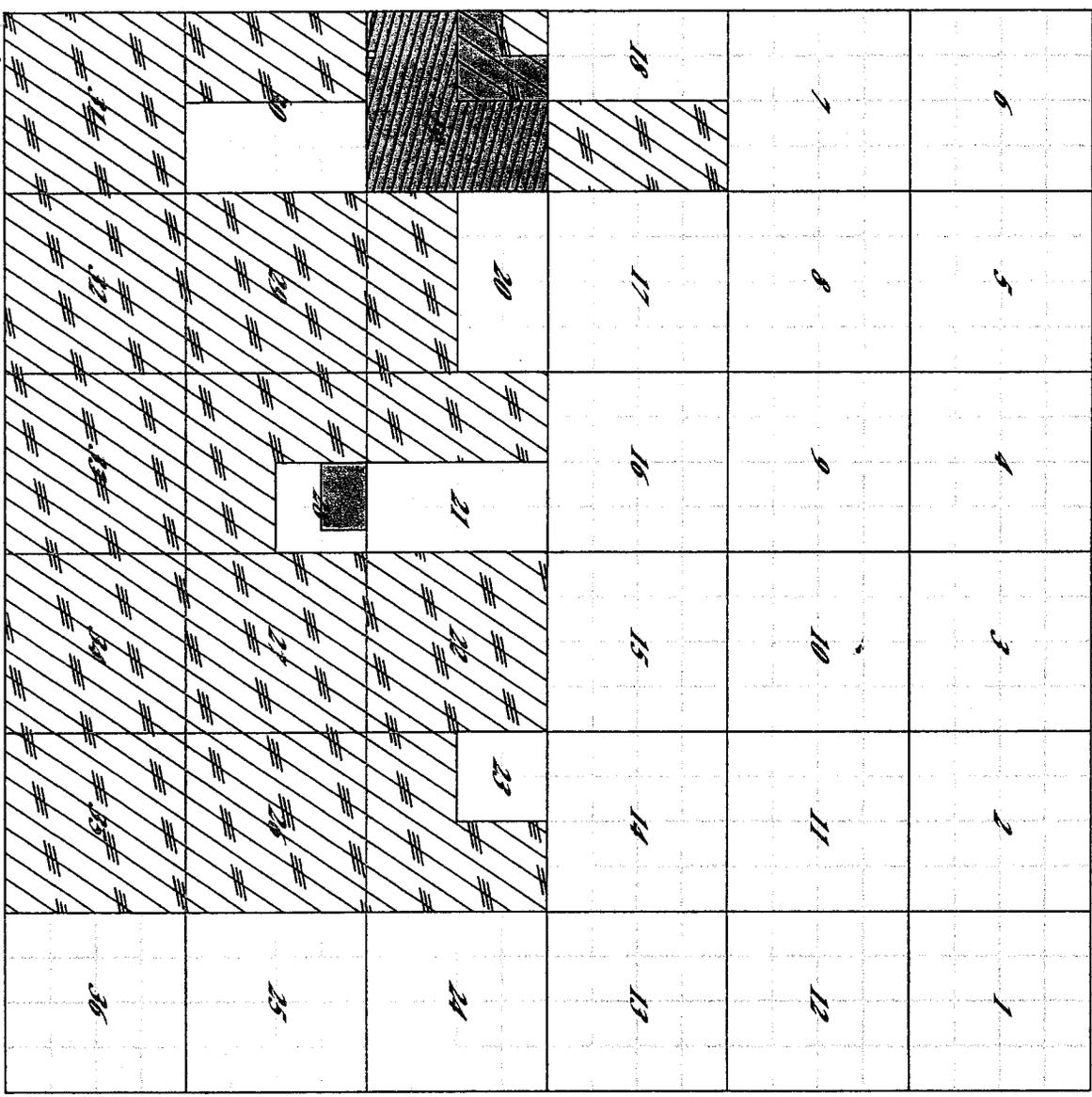
:bsw

Attachment

cc: Docket Control
Mr. William Sullivan
Mr. John Mihlik
Ms. Deb Person (Hand Carried)
File

COUNTY: Maricopa

RANGE 6 West



TOWNSHIP 2 North



W-2450 (11)
Water Utility of Greater Tonopah, Inc.
(West Phoenix)



(2)
Barrera Sewer Corporation
Docket No. SW-20403A-05-0586
Application for CC&N



(1)
Water Utility of Greater Tonopah, Inc.
Docket No. W-02450A-06-0253
Application for Extension

WATER SERVICE AREA DESCRIPTION

BALTERRA

THE NORTHEAST QUARTER AND THE SOUTH HALF OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 6 WEST,
GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF THE SOUTHWEST QUARTER OF SAID SECTION 19 DESCRIBED AS FOLLOWS:

COMMENCING AT A BRASS CAP FOUND AT THE SOUTH QUARTER CORNER OF SAID SECTION 19, FROM WHICH AN ARIZONA DEPARTMENT OF TRANSPORTATION BRASS CAP AT THE SOUTHEAST CORNER OF SAID SECTION 19 BEARS SOUTH 89°28'08" EAST, A DISTANCE OF 2640.04 FEET; THENCE NORTH 89°28'43" WEST, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 1482.82 FEET; THENCE NORTH 00°31'17" EAST, A DISTANCE OF 40.00 FEET TO A HALF INCH REBAR AT A POINT ON A LINE LYING 40.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19 AND THE TRUE POINT OF BEGINNING;

THENCE CONTINUING NORTH 00°31'17" EAST, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR AT A POINT ON A LINE LYING 240.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19;

THENCE SOUTH 89°28'43" EAST, ALONG SAID LINE LYING 240.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR;

THENCE SOUTH 00°31'17" WEST, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR AT A POINT ON SAID LINE LYING 40.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19;

THENCE NORTH 89°28'43" WEST, ALONG SAID LINE LYING 40.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, A DISTANCE OF 200.00 FEET TO A HALF IN REBAR AT THE POINT OF BEGINNING;

ALSO EXCEPT ANY PORTION OF THE SOUTHWEST QUARTER OF SAID SECTION 19 LYING WITHIN THAT CERTAIN TRACT OF LAND CONDEMNED FOR HIGHWAY PURPOSES BY INSTRUMENT RECORDED UNDER DOCKET 7553, PAGE 749, RECORDS OF MARICOPA COUNTY ARIZONA.

SITUATE IN THE COUNTY OF MARICOPA, STATE OF ARIZONA.

CONTAINS 475.815 ACRES MORE OR LESS.



M E M O R A N D U M

DATE June 14, 2007

TO: Linda Jaress
Executive Consultant III

FROM: Dorothy Hains, P.E. *DH*
Utilities Engineer-Water/Wastewater

RE: **Engineering Report For Water Utility of Greater Tonopah, Inc.
Application to extend its CC&N to provide water service
Docket Nos. W-02450A-06-0253**

I. Introduction

The Water Utility of Greater Tonopah ("WUGT") has submitted a Certificate of Convenience and Necessity ("CC&N") extension application to provide water services near the Town of Tonopah in western Maricopa County. WUGT currently serves approximately a 62 square mile area. The requested extension area is approximately $\frac{3}{4}$ square mile in size¹ and northeast of the existing CC&N area.

II. Water System Analysis

A. Existing Water Systems

WUGT operates eight individual water systems: (1) B&D/Buckeye Ranch System; (2) Dixie System; (3) Garden City/Big Horn System; (4) Rose View System; (5) Sunshine System; (6) West Phoenix Estates ("WPE"); #6 System; (7) Tuft & WPE #7 System and (8) WPE #1 System. Staff analyzed data from the 2006 Annual Report and updated information provided by WUGT. Staff's conclusion regarding the adequacy of each system is listed in the following table.

System Name	B&D/Buckeye Ranch	Dixie	Garden City/Big Horn	Rose View	Sunshine	WPE #6	Tuft WPE #7	WPE #1
PWS ID # (07-xxx)	618	030	037	082	071	733	617 ¹	N/A ¹
# of wells	2	1	1	1	1	1	1	1

¹ The area is located in the Balterra Development ("Balterra").

Total well production ²	145	40	30	30	130	20	20	20
# of storage tank	2	1	2	1	1	1	1	1
Total storage capacity (gallons)	155,000	10,000	35,000	5,000	100,000	6,000	5,700	5,000
# of existing customers	93	33	19	17	137	23	6	2
Are any FH ³ in the system?	Yes	No	No	No	Yes	No	No	N/A ⁴
Does system contain fire flow ⁵ ?	Yes	No	No	No	Yes	No	No	No
Does the system have adequate storage and production capacity?	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Is arsenic exceeding 10 µg/l standard in the system ⁶ ?	Yes	No	No	Yes	Yes	Yes	Yes	Yes

- Note:
1. The system is not regulated by either ADEQ or MCESD yet, because it is a semi-public system.
 2. Reported in gallons per minute ("GPM").
 3. FH stands for fire hydrant.
 4. Staff assumes that there is no fire hydrant in this system.
 5. Staff used 500 GPM for one hour to calculate fire flow reservation.
 6. Data came from 2006 WUGT's Annual Report and e-mail from WUGT.

Due to rapid grow in WUGT's service area, the Dixie System's existing production and storage capacity is inadequate to serve the existing base of customers. Staff recommends that WUGT take action to correct the production and storage problem² in the Dixie System. Staff further recommends that the Commission not approve any new Main Extension Agreements or CC&N extension involving the Dixie System until WUGT demonstrates to Staff that it has corrected the inadequate storage and production problem.

² WUGT can choose to take action either to install additional well or to install additional storage tank or to install combination of additional well and additional storage tank in Dixie System. WUGT can also choose to interconnect Dixie System with either Sunshine System or B&D/Buckeye System.

B. Proposed Water System

In order to serve the requested area, WUGT proposes to install a separate, new water system that includes two wells³, an arsenic/fluoride removal treatment plant⁴, a reservoir system⁵, booster pump station systems and a distribution system to serve the projected 1,209 customers within next five years. However, WUGT plans to utilize this proposed system for serving the entire Balterra Development⁶ area that includes the requested area and additional eighteen square miles. The proposed water system will be located on a parcel of land⁷ at 407th Ave. and Camelback Rd. According to WUGT, one well and a one million gallon storage tank will be installed initially. Staff recommends that WUGT submit to the Commission's Docket Control Section a copy of the Certificates of Approval of Construction ("AOC") for water source/treatment plant/storage tanks and water distribution system for the proposed water system issued by Maricopa County Environmental Services Department ("MCESD") or Arizona Department of Environmental Quality ("ADEQ") within two years of the effective date of the final decision and order issued pursuant to this Application.

III. Wastewater Services

Balterra Sewer Co. will be the sewer provider for this requested area.

IV. Maricopa County Environmental Services Department ("MCESD") Compliance

Staff received compliance status reports from MCESD. Summaries of the reports are listed below:

System Name	B&D/Buck eye Ranch	Dixie	Garden City/Big Horn	Rose View	Sunshine	WPE #6	Tuft WPE #7	WPE #1
PWS ID# (07-xxx)	618	030	037	082	071	733	617	N/A ¹
Status	Public system	Public system	Public system	Public system	Public system	Public system	Semi-public	Semi-public
Regulated by MCESD?	yes	yes	yes	yes	yes	yes	no	no

³ WUGT projects each well that could produce a 500 GPM ground water.

⁴ Based on the data from the surrounding area, WUGT expects that the groundwater from the proposed well will exceed arsenic and fluoride standards. Therefore, WUGT proposed to install a treatment plant before the initial water qualities have been tested.

⁵ The reservoir will be part of a 2.8-million gallons storage tank system at build out, however WUGT plans to install a 1 million gallon storage tank initially.

⁶ WUGT estimates 2,770 customers in the Balterra Development area within five years.

⁷ Parcel Number APN #506-35-024.

Compliance status	compliance	compliance	compliance	compliance	compliance	compliance	N/A	N/A
Date received MCESD report)	2/21/07	3/21/07	4/11/07	3/21/07	3/28/07	3/20/07	N/A	N/A

MCESD has determined that all WUGT's regulated systems are delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.

V. Arizona Department of Water Resources ("ADWR") Compliance

WUGT is located in the Phoenix Active Management Area ("AMA"), as designated by ADWR. ADWR has indicated that WUGT is in compliance with the Phoenix AMA requirements. WUGT is in the process of preparing an ADWR Designation of Assured Water Supply application⁸. Staff recommends that WUGT file with Docket Control, as a compliance item in this same docket, a copy of ADWR's Designation of Assured Water Supply, stating that there is adequate water for the area being requested, by July 31, 2009 and/or a copy of Developer's Certificate of Assured Water Supply from the Developer in the requested area by July 31, 2009.

VI. Arizona Corporation Commission ("ACC") Compliance

According to the Utilities Division Compliance Section, WUGT has no delinquent ACC compliance issues.

VII. Other Issues

A. Arsenic

(a) Existing Systems

Arsenic levels in all existing systems except the Dixie system exceed the new arsenic standard of 10 µg/l. Therefore, WUGT must bring all four regulated systems⁹ into compliance with new arsenic standard by December 31, 2007. MCESD has only issued an ATC for the arsenic removal plant for the WPE #6

⁸ In Docket No.W-02450A-06-0626, WUGT indicated that the Company would be requesting a Designation of Assured Water Supply.

⁹ Systems with arsenic levels above the new standard include the B&D/Buckeye Ranch system, Rose View system, Sunshine system, WPE #6 system, Tuft WPE #7 system and WPE #1 system. However, only B&D/Buckeye Ranch system, Rose View system, Sunshine system and WPE #6 system will be enforced new arsenic standards at present time.

system. Staff recommends the WUGT file with the Commission's Docket Control documents showing that the arsenic removal plans for the remaining systems (including point of use, blending and centralized treatment), have been approved by MCESD by December 31, 2007. Staff further recommends that the Company file by March 31, 2008, with the Commission's Docket Control, documents showing that all its existing systems are in compliance with the new arsenic standard.

(b) Proposed water system

WUGT states that an Arsenic Activated Alumina system followed by a granular ferric hydroxide ("GFH") will be installed as part of the proposed water system. The backwash water from the proposed treatment plant will be treated by a reverse osmosis unit to reduce the waste water volume before disposal. The final waste water will be disposed of in an on-site, lined, 0.6 acre evaporation pond. An Aquifer Protection Permit ("APP") will be required for this waste water disposal system. WUGT has stated that ADEQ will require a general APP for the new system, and WUGT should have its Notice of Intent ("NOI") within two months of submitting its APP application to ADEQ. Staff recommends that WUGT submit to the Commission's Docket Control a copy of the APP issued by ADEQ for the proposed treatment plant within eighteen months of the effective date of the final decision and order issued pursuant to this Application.

B. Curtailment Tariff

WUGT has an approved Curtailment Tariff that has been in effect since January 26, 2005.

C. Cross Connection/Backflow Tariff

WUGT does not have an approved Cross Connection/Backflow Tariff. Staff recommends that WUGT file its Cross Connection/Backflow Tariff with the Commission's Docket Control within 45 days of the effective date of the final decision and order issued pursuant to this Application for staff's review and certification.

Staff further recommends that the tariff shall generally conform to the sample tariff found on the Commission's web site at www.azcc.gov. Staff recognizes that the Company may need to make minor modifications according to their specific management, operational, and design requirements as necessary and appropriate.

D. Estimated Construction Cost

The Company's cost estimates are listed in the table below:

NARUC Account	Description	Company's cost estimate (\$)
303	Land and Land Rights	15,611 ¹
304	Structures & Improvements	432,750
307	Two wells (with production rate of 500 GPM per well)	654,545 ²
311	Pumping Equipment	865,500
320	Arsenic/fluoride treatment plant	652,713 ⁴
330	One 1-M gallon storage tank	341,575 ³
331	Transmission & Mains	
	22,261' of 8" pipes (\$26.38/ft)	587,325
	6,760' of 12" pipes (\$37.13/ft)	251,000
	3,155' of 16" pipes (\$58.33/ft)	184,060
	458' of 24" pipes (\$148.95/ft)	68,220
355	On-site generator	144,250
380	Wastewater treatment/disposal plant	261,818 ⁵
335	Fire Hydrants (65 units)	162,500
	Total	4,621,867

- Note: 1. WUGT estimates a 0.918 acre site will be needed.
2. Reflects Company's estimate of the initial five year period expenditures to service the extension area. WUGT has estimated at build out it will cost \$3,000,000 to serve the entire Balterra Development area and \$1,309,091 to serve the extension area.
3. Reflects Company's estimate of the initial five year period expenditures to service the extension area. WUGT has estimated at build out it will cost \$2,805,750 to serve the entire Balterra Development area and \$1,224,327 to serve the extension area.
4. Reflects Company's estimate of the initial five year period expenditures to service the extension area. WUGT has estimated at build out it will cost \$3,294,000 to serve the entire Balterra Development area and \$1,437,381 to serve the extension area.
5. Reflects Company's estimate of the initial five year period expenditures to service the extension area. WUGT has estimated at build out it will cost \$1,321,300 to serve the entire Balterra Development area and \$576,576 to serve the extension area.

The Company estimated total cost is \$4,621,867 to serve the extension area during the initial five year period. Staff concludes that the Company's estimates of the initial five year period expenditures are reasonable and appropriate for this project. However, approval of this CC&N application does not imply any particular future treatment for rate base. No "used and useful" determination of the proposed plant in service was made, and no conclusions should be inferred for future rate making or rate base purposes.

VIII. Summary

I. Conclusions

1. WUGT has no outstanding ACC compliance issues.
2. WUGT is in compliance with ADWR monitoring and reporting requirements.
3. MCESD has determined that all WUGT's regulated systems are delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.
4. Staff concludes that the estimated costs of the new system are reasonable and appropriate for this project. The approval of this CC&N application does not imply any particular future treatment for rate base. No "used and useful" determination of the proposed plant in service was made, and no conclusions should be inferred for future rate making or rate base purposes.
5. Balterra Sewer Co. will be the sewer provider for the requested area.

II. Recommendations

1. Staff recommends that WUGT take action to correct the production and storage problem in the Dixie System. Staff further recommends that the Commission not approve any new Main Extension Agreements or CC&N extensions involving the Dixie System until WUGT demonstrates to Staff that it has corrected the inadequate storage and production problems.
2. Staff recommends that WUGT submit to the Commission's Docket Control Section a copy of the Certificates of Approval of Construction ("AOC") for water source/treatment plant/storage tanks and water distribution system for the proposed system issued by MCESD or ADEQ within two years of the effective date of the final decision and order issued pursuant to this Application.
3. Staff recommends that WUGT file with Docket Control, as a compliance item in this same docket, a copy of ADWR's Designation of Assured Water Supply stating that there is adequate water for the area being requested by July 31, 2009 and/or a copy of Developer's Certificate of Assured Water Supply from the Developer in the requested area by July 31, 2009.
4. Staff recommends the WUGT file with the Commission's Docket Control documents showing that the arsenic removal plans for the remaining systems

(including point of use, blending and centralized treatment), have been approved by MCESD by December 31, 2007. Staff further recommends that the Company file by March 31, 2008, with the Commission's Docket Control, documents showing that all its existing systems are in compliance with the new arsenic standard.

5. Staff recommends that WUGT file its Cross Connection/Backflow Tariff with the Commission's Docket Control within 45 days of the effective date of the final decision and order issued pursuant to this Application for staff's review and certification. Staff further recommends that the tariff shall generally conform to the sample tariff found on the Commission's web site at www.azcc.gov. Staff recognizes that the Company may need to make minor modifications according to their specific management, operational, and design requirements as necessary and appropriate.
6. Staff recommends that WUGT submit to the Commission's Docket Control Section a copy of its APP for the proposed arsenic treatment plant for the requested area issued by ADEQ pursuant to this Application within eighteen months of the effective date of the final decision and order issued pursuant to this Application.